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LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY;

Delivered at the London Hospital,

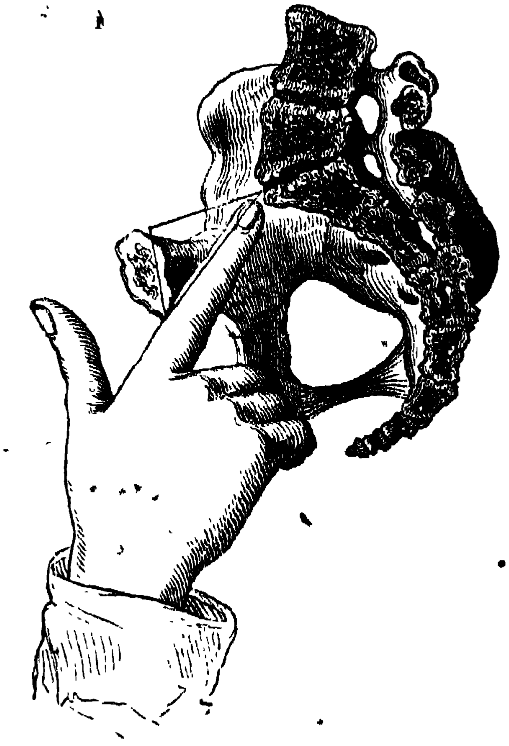
By Francis H. Ramsbotham, M.D.

Lecture IV.—*The Pelvis.*

Pelvimeters, *continued.*

At the close of the last lecture we learned that our Gallic neighbours had displayed considerable ingenuity in the formation of instruments for the purpose of measuring the pelvic brim during labour; and you might have gathered from my observations, that I considered these means, however ingenious they might be, practically valueless. Pelvimeters, then, have not been generally introduced into use in Britain; and even if they ever were partially employed, they are now totally exploded. English practitioners are perfectly satisfied with the pelvimeters which nature has herself afforded them: our fingers and our hand are all the instruments which we require for this purpose.

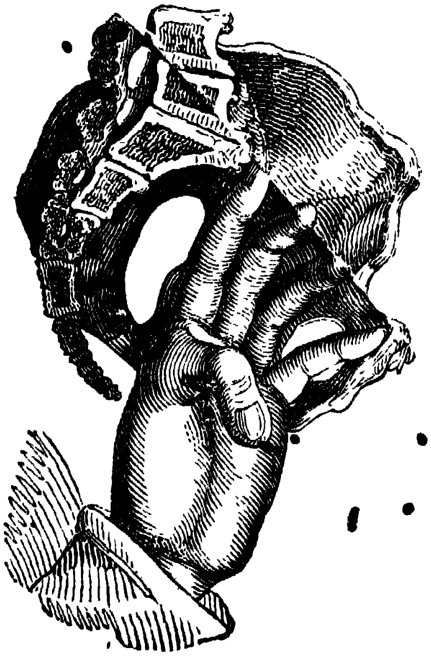
Various modes of examining the dimensions of the pelvis.—I cursorily mentioned that there were three methods by which we had been recommended to examine the size of the pelvis, without the use of any artificial instrument. One mode is by the first finger of the right hand, introduced as in a common examination, so that its point may touch, or approximate near to, the promontory of the sacrum, while the root of the finger is applied exactly under the symphysis pubis, at the upper part of the arch. Now it is evident from the pelvis before me, when I place my finger within it in this way, that a man must possess one of extraordinary length to be able to reach the promontory of the sacrum, provided the pelvis be of standard dimensions. I have a longer finger, I believe, than belongs to any of my acquaintances, yet you see what an interval there is in this, a common-sized pelvis, between the tip of my finger and the promontory of the sacrum. Indeed, there are very few persons whose first fingers above three inches long on its inner edge, from its junction with the second to its point, whereas we have described the brim of the pelvis to be four inches in the direct antero posterior diameter, and of course an oblique line drawn from the lower edge of the symphysis pubis to the promontory of the sacrum would measure somewhat more. If the pelvis be much distorted, the sacral promontory can



This engraving represents the finger introduced into a small pelvis, in the manner described.

certainly be easily felt by the finger thus introduced; but we have not even then the dimension of the direct conjugate diameter afforded us; we have an oblique line, and we must make a calculation of the difference between the length of the oblique and the straight line—which it is not always easy to arrive at—before we can obtain a correct knowledge of the diameter in a transverse direction.

Another mode has been recommended, viz. the introduction of the whole left hand into the pelvis, with the outside of the little finger touching the back part of the symphysis pubis, and the first finger placed against the promontory of the sacrum.

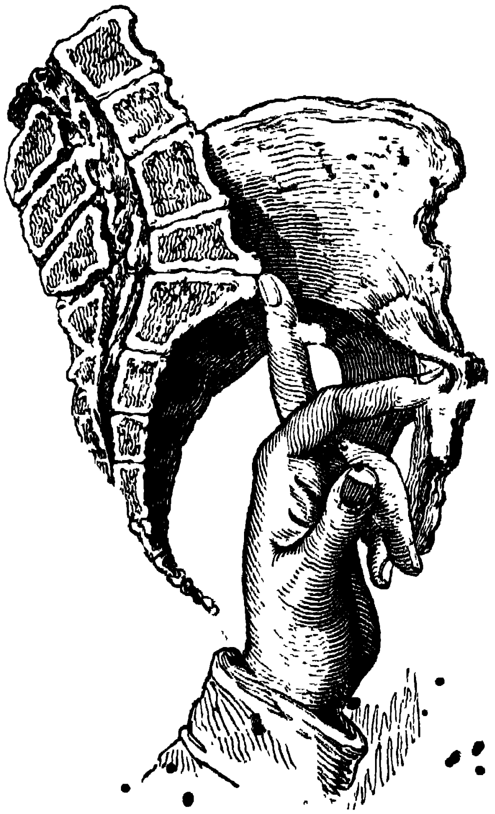


The whole left hand introduced across the brim of a common-sized pelvis, to measure its dimensions.

As every man knows what his hand measures across, he will be able to ascertain the transverse width. Thus if I find my hand only just fits in this situation, I shall know that there is less than three inches, because my hand is only two inches and three-quarters wide, which is the common average. Again, if I find I can only introduce three fingers sideways, instead of four, I shall know that the pelvis does not measure more than two inches, and probably not so much. If I can only introduce two fingers, I shall know that there is not more than an inch and three-eighths. But if, on introducing my whole hand, I should be compelled to spread my fingers widely before I can touch the sacral promontory, I shall then know that the pelvis is more than three inches, probably four, or near it.

But this mode of inquiry it is not always very easy to follow, because the child's head generally occupies some portion of the pelvis, even when the brim is contracted; and we cannot carry the hand up in this way, and make the accurate examination which we require, when the child's head is partially protruded through the brim, and engaged in the upper part of the cavity. It might, perhaps, be employed with advantage, provided the deformity be excessive.

The third mode is that which I myself adopt, and which I would strongly recommend to you, viz. that you should introduce two fingers of the left hand within the vagina; that you should place the fore part of the first finger exactly behind the symphysis pubis, and carry the tip of the second against the promontory of the sacrum.



The two first fingers of the left hand introduced into a common-sized pelvis, as recommended.

In a common-sized pelvis even then there is little difficulty in reaching the promontory, by stretching the fingers in this way; and we are enabled to ascertain by the distance between them the exact dimensions of the pelvic brim. We may withdraw our fingers in the same position, and measure off the space between their extremities on the first finger of the right hand, as with the limbs of a pair of compasses. If you please you may follow out the practice I pursue still farther. I always carry about with me a female catheter, which no obstetrical practitioner should ever be without. Upon this catheter I have marked, in very faint lines, inches and half inches, and I can measure the exact diameter of the pelvis at the brim, by applying this little instrument to my fingers. It is not difficult to accomplish this mode of examination, even when the head is partly engaged in the pelvis, because the protruded portion is situated between the two fingers, and we have no trouble in passing one before, and the other rather behind it; it is by far the easiest mode of the three. Where there is a small pelvis, there is no difficulty whatever; and where the pelvis is about the common size, or a little below it, there is less than in either of the other methods.

Importance of discriminating the promontory of the sacrum.—But you must be capable of discriminating the promontory of the sacrum when you feel it; this is a matter, believe me, of no small importance. You might think it was very easy to distinguish, and so indeed it is, to a man given to reflection, or who has seen any thing of practice; he at once knows that it is the promontory of the sacrum that he feels and touches; but I assure you that, over and over again, it has been mistaken for the head of the child, and perforating instruments have actually been proposed under that idea; nay, I once met with a case myself, where this bony projection was mistaken for the fœtal head.

Examination of the cavity of the pelvis.—Well, then, although it is at the brim that we usually find the pelvis diminished in capacity, when one part of it only suffers distortion, yet sometimes the cavity, and at others the outlet, becomes the subject of contraction, while the brim is well shaped. After having made an examination, then, of the brim, in the way I have recommended, let us next examine, as carefully, the cavity. Let us run our finger, not rubbing it, but gently along the sacrum, to ascertain that it possesses its due curvature; let us see that the spines of the ischia do not jut too much inward; and afterwards, if possible, let us determine the space between the *tubera ischiorum*, and then we have gained all the information we can possess of the pelvic capacity, while the woman is living.

Classification of pelves.—Having had it demonstrated to us that there is such a thing as deformity of the pelvis, that there are differences in the size of this organ, it will next naturally follow, that we should endeavour to form some classification, so far as is useful in practice. I have therefore been accustomed to divide pelves into *four gradations* or *varieties*. But when I mention these gradations, I beg you will understand that I do not mean to say that every pelvis which you take up must measure this or that diameter, because there is an infinite variation in degree; but that there are these four varieties worthy of being retained in the mind for purposes of practical utility.

The *first* gradation, then, which I make, is the standard pelvis, or any thing above it; and we will take the brim as being that part an attention to which is of the chief importance. In this gradation the brim is five inches in the lateral, and four inches in the conjugate diameter, or more; and through such a pelvis a child will pass easily.

The *second* gradation is any pelvis lower than the standard, but sufficiently large to permit the child's being born alive; either being propelled by the action of the uterus, and the powers of nature alone, or extracted by instruments which are perfectly compatible with the safety and preservation of the child, and the integrity of the woman's structures. Now it is possible for a child to be thus born alive, if the pelvis possess three inches in the lateral, and three inches in the conjugate diameter. Some practitioners, indeed, among whom I may mention Mr. Barlow, have thought that a pelvis measuring only two inches and three-quarters in its conjugate diameter, would permit the head's passing whole, provided there was sufficient room laterally. My own opinion, however, decidedly is, and that derived from clinical observation, that it would be almost impossible to propel the head of a common-sized fœtus, at full maturity and well ossified, through a pelvis containing less than three inches from the fore to the back part, even although it might measure five or six inches laterally. My second gradation, then, is limited to three inches by three in its lowest proportions. In looking at those pelves which are distorted antero-posteriorly, we shall generally find that the lateral diameter measures as much, pretty nearly, if not more, than in the standard pelvis; but there is a corresponding diminution of space in the conjugate diameter; and we have already seen that it is to the diminution of space here that the difficulty is generally attributable.

Then the *third* gradation is such a sized pelvis as would admit of a well-educated obstetrician extracting a fœtus through it after craniotomy has been performed—after the skull has been perforated and the brain evacuated. Now most obstetricians agree pretty nearly as to the three inches in the second gradation, but this third has given rise to considerable controversy. Some say that a child can be brought, after the operation of craniotomy, through a pelvis of little more than an inch; others denying that position, and contending that it requires

a much greater space. Perhaps this disagreement may, in some degree, depend upon the tact which the operator possesses. A man who is in the habit of using obstetrical instruments, will be able to extract a child through a smaller pelvis than one trying for the first time. This may in some measure account for the discrepancy in opinion among practical men. I will, then, take the liberty of forming a third gradation of my own, according to my own ideas; and I believe, that unless the pelvis possess three inches in the lateral,
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woman through it, unless the soft parts were very tumid, and occupied more room than usual. But here [exhibiting it] is another having a space of not more than an inch and a quarter on each side, and an inch at the promontory of the sacrum; and through this, in my opinion, no child could be drawn.

The *last* gradation, then, of the pelvis is any thing below three inches laterally, by an inch and three-eighths antero-posteriorly; through which space a child cannot be brought by the most experienced obstetrician, even after the head has been opened and the brain extracted; and in which case it would be necessary to have recourse to the almost universally fatal operation of the Cæsarean section.

A very large pelvis not without disadvantages.—From the observations which I have had the honour to lay before you, gentlemen, it cannot but forcibly strike you that no greater evil can befal a woman in this life than the infliction of a small pelvis; and you might probably infer, that no greater blessing could be provided for her than an unusually capacious one. But in this reasoning you will be sadly mistaken: a very large pelvis, so far from being a great blessing to a child-bearing woman, is (though not so great a curse as one below the standard size) not without its disadvantages—nay, without its dangers—both to the mother and to her fruit.

One of the most common accidents to which a woman with a large pelvis is liable, is the descent of the gravid womb. Now we know (at least we shall hereafter learn) that the uterus, after it has become impregnated, remains in the pelvis for a certain time; it then rises through the brim by degrees, till at length it occupies the abdominal cavity. If, however, the pelvis be sufficiently capacious to give it lodgment for a longer period than should naturally be, it is allowed, by its own weight, to sink lower than it ought, and there is consequently so much more pressure on the nerves and blood-vessels within the pelvic cavity; nay, the womb, with its contents, has even been known to prolapse through the external parts, hanging like a large tumor between the thighs, inverting the vagina, dragging down the bladder, and also to a certain degree the rectum. We must therefore consider that women who have pelves of extraordinary size are subject to the chance of an undue subsidence of the uturus during gestation—to prolapsus and procidentia.

Another inconvenience is almost universally recited by authors, as one to which women with very large pelves are more particularly liable: I speak of retroversion of the gravid womb; when the fundus, instead of rising into the abdomen from the cavity of the pelvis, is turned back on the promontory, or falls down into the hollow of the sacrum; an accident which always produces great disturbance, and was mostly, until better understood, attended with fatal consequences. A woman, then, who owns a pelvis of unusual size, is supposed to be particularly obnoxious to retroversion of the uterus. I shall hereafter tell you, and adduce some circumstances in proof, that this generally received opinion, so far as my experience has taught me, is incorrect. By far the greatest number of cases of this description that have come under my own notice, have happened to patients who possessed pelves rather under the average width in the conjugate diameter than above it. Certainly that woman who has a good standard pelvis is less liable to this misplacement than if she had a large one; but, as I have just said, the majority of instances which I have met with have occurred to persons whose pelves have been smaller than ordinary.

But a third inconvenience, and one of no trifling moment, is the rapidity with which a child will sometimes be expelled through a pelvis of unnatural capacity, provided other things favour this occurrence. If the soft parts are relaxed, the os uteri opened, the vagina and perineum easily distensible, and the dimensions of the bony canal preternaturally great, it is possible that the child may be propelled into the world so rapidly that no assistance can be rendered. A woman has been known, I might almost say, to drop a child, while moving across the drawing-room, while riding in a coach, while walking in the street, under circumstances in which her own life as well as the infant's must be brought into some degree of hazard.

Now the possibility of such an occurrence is worth being borne in mind, not only that we may guard our married patients, if we know they possess a large pelvis (and we may know it by having attended them in labour previously), against the chance of the child suddenly emerging into the world, but in a judicial point of view also. It may be the means of saving a life, that might have been unjustly sacrificed, if we reflect how rapidly the process of labour has been accomplished in some instances; and that what has once occurred in nature may possibly occur again. We will presume, then, that a young unmarried woman has unfortunately been entangled by the snares of one of our own sex, and that she finds herself impregnated: from the modesty inherent in the female character, she is unwilling that her shame should be divulged — she fully intends to acknowledge her misfortune before her expected accouchement, but puts it off from day to day, with a natural aversion to make a confession which must drive her from the society of her friends. Probably she may have miscalculated the time at which she expects to be delivered, or perhaps she may be seized with parturient pains rather prematurely. She feels a rumbling in her bowels — by no means uncommon at the commencement of labour; — she fancies she has an inclination to evacuate the rectum; — she retires to the garden for that purpose; — she finds strong pains come on; — she is unable to leave the seat on which she has placed herself;—the vagina and the external parts are very much relaxed;—the uterus acts forcibly;—and the child and placenta are propelled out together into the mire below. She is aware then of what has happened;—she hears no scream;—she has but a very few minutes in which to take a final determination; — she wishes to hide the occurrence;—she comes into the house again;—returns to her friends;—makes the best story she can for the appearance of her linen;—and for a time every thing is hushed. By and by, suspicion arises; it is possible the place may be emptied, and the child is found. A cry of "murder!" is raised; she is suspected first, then indicted, dragged into a court of justice, and upon medical testimony will often depend her life.

That a girl inexperienced in the feelings of childbirth may be unaware of the approach of labour, is sufficiently evident to require no illustration; but I cannot help enforcing the position by relating a short anecdote:—I was in attendance on a lady who had borne a number of children, and had generally suffered protracted labours. I had just made an examination, and found the os uteri but little dilated. I was standing by the fire in her chamber, in conversation with a female relative, who was anxiously watching over her, when I was requested to leave the room, in consequence of an inclination my patient felt to evacuate the rectum. I had scarcely retired when I was summoned back again, and to my surprise I found her sitting on the night table, and both child and placenta lying in the pan beneath. In this instance the infant was saved: had the same accident happened in a closet, it would most probably have lost its life. This case shews both the rapidity with which the parts occasionally become dilated, and also how much the mother herself may be deceived in her sensations. Nor is this the only instance of the kind that I have witnessed; but another very similar has also come under my own immediate notice.

It is very possible, then, that such an occurrence may take place as I have attempted to bring before you, and under such circumstances let us always lean to the side of mercy. We must not, and we dare not, as we value our oath, state what we know to be untrue, and we should be equally criminal if we withheld any knowledge that we possessed bearing on the case: we are bound to give in evidence that such rapid labours have occasionally happened, and it is for the judge and jury to grant the poor creature the benefit of this information. Let us treasure up these facts in our recollection; we may hereafter, perhaps, derive much consolation from their application.

DISEASES OF THE PELVIS CAUSING DISTORTION.

I shall now proceed briefly to mention some of the diseases to which the pelvis is more particularly liable; and first, I shall treat of those affections by which distortion of the organ is produced. These diseases are principally two; indeed, I may say entirely two;—for I like to speak positively and plainly when it is possible, without reservation or ambiguity. We will say that, independent of exostosis and fracture, there are two diseases by which the bony pelvis becomes diminished in capacity; these are *rickets* and *mollities ossium*—the former being a disease of childhood, and the latter a disease of adult age. They both consist in a want of a due proportion of osseous matter. There being more animal than earthy matter entering into the composition of the bones, and there being less earthy matter than there ought to be, they yield like softened wax, the symmetry of the organ is destroyed, and these unfortunate distortions are produced.

RICKETS.

History.—First, then, a few words on rickets. Glisson was the first person who describes this affection, which he did in a treatise *De Rachitide*, published in 1659; so that we have no account of the disease further back than 200 years. It is not at all noticed by the ancients, and it is supposed that they were ignorant of its existence. It is more probable, however, that the disease has sprung up with the spread of luxury and the growth of the mechanical arts, else it could not have escaped the acuteness of the physicians of olden times. Rickets, then, must have been a very uncommon affection in the early ages of the world, even if it existed. Most physiologists are of opinion that it is confined to the human species. Barlow, however, in his Essays on Midwifery, tells us, that quadrupeds are liable to it, as well as the human subject; that he has known many young pointers suffering under it, from not having sufficient nourishment. This is contrary to the opinion of Osborn, who said that so far as his observation extended, it is peculiar to mankind.

Proximate cause.—The proximate cause of the disease, or that in which it consists, is a want of the due secretion of the phosphate of lime, which constitutes the principal earthy ingredient in the formation of bone. Dr. Davy, the very ingenious brother of the late President of the Royal Society, has given us a somewhat new theory of rickets, or rather of the softening of the bones. He says the cause is not so much that there is a want of lime, as that there is an exuberance of phosphoric acid in the system. Now, as he states, truly enough, the phosphate of lime is an insoluble salt, and it is deposited in proper situations in the bones for the purpose of giving them solidity; but if we add an increased quantity of phosphoric acid, the phosphate of lime is converted into a superphosphate, which is a soluble salt, is taken up by the fluids, and circulated in the vessels of the body; and that, therefore, the bones are deprived of their strength, because what ought to be insoluble has, by the addition of an increased quantity of phosphoric acid, become a soluble substance. This is a very ingenious view, and may be a true one.

Remote causes.—With regard to the remote causes of the disease, many have been assigned at various times. At one period it was thought that rickets was dependent upon syphilis. This opinion was more owing to the period at which rickets and lues venerea were first described, than to any decided connexion between the two diseases having been discovered by practical men. Lues venerea was first treated of in England in 1579, by "G. Baker, Maister of Chirurgerie." Some authors, indeed, on the continent, had made it the subject of essays previously to that time. Hence it is probable that it was not till 40 or 50 years after it had been noticed, that rickets began to attract attention. The opinion, however, is evidently founded in error, and we are now persuaded that rickets has no connexion with a syphilitic taint in either parent. The milk of a rickety nurse has been said to be another remote cause. Even to this day it is a common prejudice for a mother, who requires a wet nurse, not to engage a person at all deformed. I do not myself believe that the milk of a woman who has been the subject of rickets in early life will necessarily produce the same disease in the child she suckles; but, inasmuch as the constitution of rickety females is seldom strong, even during the whole continuance of life, such a woman should not be chosen. Again, it has been said that the acid contained in the human milk is the remote cause of this disease. It has been demonstrated by chemical analysis that the human milk contains a larger quantity of free acid—the lactic acid, than that of most animals, and it was therefore argued by some physiologists that this acid was the cause of rickets. This is certainly not a necessary inference, and if we follow the opinion of Mr. Barlow, that other genera besides the human subject are liable to rickets, we must discountenance the idea. There can be no doubt that the disease is sometimes hereditary, and persons who have a scrofulous habit are more frequently attacked by it than those who have not. We know that scrofulous parents commonly beget scrofulous children, and we may suppose therefore that scrofulous parents will produce children who will become rickety. But of all the remote causes which lead to this disease, the most frequent are, feeding infants, who ought to live upon the breast-milk, with improper farinaceous food, and keeping them, when children, pent up—in a factory, for instance: obliging them to remain in one posture the principal part of the day, breathing a vitiated atmosphere, without the opportunity of suitable exercise, and in many instances, I fear, with an insufficiency of nourishment.

Period at which it occurs.—This disease scarcely ever appears during suckling. It is therefore not so much one of infancy as of early childhood, and it seldom shews itself after a certain age: perhaps we may say that five or six years is the extent. It is generally first discovered from a year and a half to two or three years old.

Symptoms.—The symptoms are these:—we almost invariably observe a peculiarly large head, a very prominent forehead, and the fontanelles (particularly the anterior) are longer in closing than is usual in most children. These are the first external marks which we perceive. The health soon declines; the appetite is generally bad: at other times, however, it is very voracious. The pulse is quick, the countenance pale, the stools are frequent and loose, and considerable emaciation of the body takes place. By degrees the abdomen becomes tumid; sometimes it is hard, and has a solid feel; in other cases tense, like a drum. The wrists and ankles become enlarged, the ribs flattened, the sternum extended outwards, the spine crooked, and then distortion of the legs and pelvis supervenes. During the progress of the disease, distention is mostly slow. All this shews a want of power in the system, an inadequate assimilation of the nourishment afforded, and a particularly tardy deposit of bone: some of the symptoms, indeed, indicate mesenteric obstruction, and perhaps glandular enlargement.

Treatment.—The remedies are such as are likely to improve the general health, and we may carry forward our indications as well through the stomach as by means of external applications. We must attend particularly to the *primæ viæ*—we must take care that the bowels act regularly and properly—not only daily, but satisfactorily. There should not be merely a scanty stool in the course of the day, but the lower bowels should *empty* themselves once in the twenty-four hours; which is a point, particularly in children, not sufficiently attended to. Whether a daily evacuation occurs or not, it is right to give some gentle purgative medicine—a dose or two of calomel may be exhibited in the first instance, and afterwards a slight course of some milder preparation of mercury may be entered upon; not to produce ptyalism, because that would increase the debility, but to correct the secretions. Then, when we have got the secretions into a more healthy condition, we may begin with tonic medicines, and first try the bitters. Bark is very good, and particularly that elegant preparation, sulphate of quinine. Perhaps the most efficacious medicine, however, is steel: the muriated tincture, or the vinum ferri, is usually given; but we can seldom get young children to take either for any length of time, on account of their nauseous taste. A much less disagreeable form is now a good deal in use, introduced by Mr. R. Phillips, well known by his Strictures on the Pharmacopœia; who was once a lecturer on chemistry at this hospital;—I allude to the aqueous solution of the tartrate of steel. It may probably be obtained at every druggist's, but it was first made at the shop of Mr. Edinborough, of the Poultry. It may be given in the same doses, or rather larger, than the tinctura ferri muriatis, and is much more useful, because it is not so unpleasant. Inasmuch, however, as it is a watery solution, it will not keep for any great length of time; if, therefore, you wish to have it in your own laboratory, a small quantity of spirit should be added to it. The carbonate of iron is also a good medicine, and we have little difficulty in administering it to children, mixed with honey or treacle. You may give from ten to twenty or more grains, three times a day. The sulphate of iron, I think, is inadmissible; at least it is not so desirable as the other preparations. There is another medicine which we may perhaps give with advantage—lime. Whichever theory we choose to adopt as to the proximate cause of the disease—whether the want of phosphate of lime or the super-abundance of phosphoric acid, so that a super-phosphate is formed—this medicine would seem to be indicated. We cannot give it in any large quantity, but lime-water may be mixed with milk to form a common beverage. I will not say much upon diet; but let the child have that which is most easily assimilated—jelly, broths, light meat, eggs in any form, and milk; small quantities of wine, or good malt liquor, may also be allowed. At the same time, let us not neglect external means. The child must breathe a purer air than that to which it has been accustomed. If it be in a town, send it to the country; if it live in the country, send it to the sea-side. Let it have moderate exercise under pleasurable circumstances; let it be plunged into a cold-bath, if it can bear it, or bathed in the sea. With regard to exercise, it is a matter of great consequence, while the bones are soft, that the child should not be much upon its legs. This is highly important in regard to a male child even, but how much more so in regard to a female, when, by permitting but a slight diminution in the size of the pelvis to take place, we entail such misery for life? Let us be particular in not allowing the child to stand much, nor to sit in the nurse's arms more than can be helped, but keep it lying as constantly as we can.

MOLLITIES OSSIUM.

The other disease to which I shall call your attention is mollities ossium—an affection more rare than rickets, but still one which we sometimes meet with in a very aggravated form.

Proximate cause.—This is a disease of the adult, and it consists in an absorption of the earthy matter from the bones of the body. After deposition has taken place, and the skeleton has become fully ossified, and all the parts are as firm as they naturally should be, the bones begin to lose their osseous matter, and can neither support their own weight, nor that which is super-incumbent upon them. Here also we may perhaps be inclined to favour Dr. Davy's theory. We may suppose that, from some particular circumstance of constitution, an increased quantity of phosphoric acid is generated, under which the super-phosphate of lime is formed, so that the solidity of the bones is destroyed. This affection is commonly supposed to be confined to the human subject, but Denman relates that John Hunter informed him that one of the old lions in the Tower had died of softening of the bones.

One of the best published cases of mollities ossium that I have ever met with, is given in the fifth volume of the Medical Observations and Inquiries, by Mr. Thomson, who was surgeon to this hospital; and the case occurred in this very house. A plate, which I show you, accompanies Mr. Thomson's account, from which it appears that the bones were contorted in almost all possible directions; they had so completely lost their firmness, that when the man died, even the femur, the bones of the skull and pelvis, could be cut through by a common scalpel. The patient was admitted into the hospital for what was considered rheumatism; and he very soon became unable to move from his bed, partly because his bones would not bear him up, and partly on account of the pain, which was very severe. He was bed-ridden for a length of time before his death.

Symptoms.—The symptoms of the disease are of this kind: we shall probably have, in the first instance, considerable pain—pain in the joints—pain in the bones—which might simulate and be mistaken for rheumatic pains. We shall soon find that the patient is unable to move, and will lie on a couch or on a bed. We shall in process of time be able to detect easily the softening of the bones; and if they become at all contorted, we can then have no hesitation in declaring the complaint under which the patient labours.

Treatment.—How then shall we cure this disease? I am almost afraid that when it is of long standing, expecting a cure would be hopeless; indeed, I believe that in every instance where a loss of their solidity has taken place, to such an extent that the bones could be bent by the hand, the case has terminated fatally; but all cases of mollities ossium do not assume such a formidable appearance; and it would be right to attempt to produce a healthy action in the body generally, by purgatives, alteratives, and tonics—to strengthen the fibres of the muscles—to brace the system, by cold bathing and proper diet. In this, then, appears to consist the principal part of our practice—correcting the secretions, strengthening the constitution by proper medicines and diet, perhaps the exhibition of lime, and keeping the patient in a recumbent posture, so that, if recovery take place, there should be as little deformity as possible.

It has been remarked, that those cases which I have called, after Dr. Blundell, the elliptical contortions of the pelvis, are generally produced by mollities ossium, while the angular are caused by rickets. How true this may be I cannot determine. In rickets certainly the child is walking about, because there is no great deal of pain; and when the bones give, the acetabula are thrown inwards, towards the promontory of the sacrum, and the symphysis pubis is thrust outwards; and in this way this peculiar configuration may be produced. But under mollities ossium the patient is unable to move, in consequence of the pain which is experienced; she lies on her back, and the weight of the symphysis pubis, pressing inwards, is sufficient to produce the deformity of the bones; but, as I said before, I cannot answer that this opinion is correct.

We must leave the diseases of the Joints of the Pelvis to the next lecture, and shall afterwards proceed to the anatomy of the organs of generation.

CLINICAL OBSERVATIONS

ON

DIFFUSE PHLEGMON.

By Baron Dupuytren.

From the "Leçons Orales," published periodically, under the Baron's inspection.

Case I.*—*Lesion of the Head from a Fall—Diffuse Erysipelatous Phlegmon of the Integuments—Death—Autopsy.*

Phlegmonous erysipelas of the integuments of the head, said M. Dupuytren, is one of the most important accidents with which we can be acquainted, both on account of its frequency, its severity, and the active treatment which is required to guard against its terminating fatally. We have had within the last few days a patient in the Salle Ste. Marthe, whose case was a fatal one of this kind of phlegmon.

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* This first case, which is of late occurrence, we take from the Gazette des Hôpitaux.

Jacques Millaingrand, aged 53, of a moderately good constitution, but worn down with labour, came into the Hôtel Dieu on the 18th of last month (Sept. 1833.) He was a day-labourer, working hard, and living ill. A few days before he was taken into the hospital he was engaged in loading stones, when in dismounting from the waggon in which he had been, he fell, and the whole weight of his body came chiefly on the crown of his head. For the first four days he felt nothing particular resulting from the accident; but he fell sick on the fifth day, complaining of headache, troubled sleep, and severe pain. He desired to be carried to the Hôtel Dieu.

On his arrival, the characters of the phlegmon were the following:—The skin, attacked with œdematous inflammation, was blanched, pitted under the fingers, and resumed its level but slowly. Merely touching the hair gave the patient much torture. He was suffering at the same time from fever, accompanied with delirium: he said he was quite well, and wanted to go away. Coma presently supervened, and shiverings indicated the formation of pus, which though at first diffused pretty generally through the cellular tissue, formed at last a large reservoir on the top of the head, and then several abscesses, first on the right temple, then on the upper margin of the left orbital arcade, &c.

The symptoms had now become intense: the surgeon opened the parts by free incision, and a large quantity of not unhealthy-looking pus flowed from the reservoir. By means of frequent dressings the flow of pus was encouraged, and it was thus prevented from clogging the wounds. An emetic, purgatives, and slightly-irritating lavements, were administered.

As the erysipelas was extending to the face, vesicatories were applied to it—a mode of treatment which produced a beneficial change in the state of the patient. Next day he wanted food; and desired to be allowed to go home. M. Dupuytren was not wrong in his surmise, that the change for the better would not prove very permanent. In fact, on the following day all the symptoms were aggravated: drowsiness, delirium,—the man got up in the night, and wandered for some seconds about the beds of his neighbours: he was deaf at the next day's visit, could give no answer to any question, and was labouring under general depression. Pulse frequent, full, resisting: the heat, which was not considerable in other parts of the body, was still pretty high in the face: the teeth and lips dry. On the following day, profound coma, constant delirium, lips parched and blackish; tongue dry and horny. Death on the 27th, ten days after he came in.

The chief result of the autopsy was the discovery of a well-marked infiltration of the meninges and lobes of the brain; a considerable effusion of serum on the surface of this viscus and in the occipital fossæ.

It may be added, that there is another man in the very same ward who has been more fortunate in the issue of a complaint of the same sort. But he has had the whole vault of the cranium necrosed. There remains, however, at present, nothing more than a fistulous opening on the forehead: the man's general health is very satisfactory, his appetite is good, and all his functions are performed in the most promising manner.

I have frequently spoken in my clinical lectures, said M. Dupuytren, of a species of phlegmon to which I have given the name of *diffuse phlegmon**—a designation which has since been generally adopted here. This disease, though very frequent and severe, has been passed over in silence by most authors, while it has been confounded by others with its complications, and described under the names of phlegmonous erysipelas—erysipelatous phlegmon—traumatic erysipelas, &c. Many have mistaken it for phlebitis, inflammation of the lymphatics, &c.

The expression *diffuse* phlegmon has been adopted to distinguish this disease from that in which the phlegmon is *circumscribed*, and the following example will sufficiently illustrate the characters of the disease.

CASE II.—*Diffuse Phlegmon of the Left Leg.*

A washerwoman, aged 68, rather fat, met with a fall by which she bruised her leg rather severely, but without producing any wound. The pain at first was slight, and accompanied by very circumscribed redness: these symptoms, however, went on increasing; the limb became swollen; fever supervened; and she was brought to the hospital, but not for twenty days after the accident. At this time the limb was the seat of very active inflammation, and the epidermis detached at various points. At the inner part, between the middle and lower third of the limb, there was a blackish rounded eschar, about two inches in extent. Round it, and at other points in the same situation, manifest fluctuation was present. The eschar was divided, and we then arrived at the depôt from which issued a considerable quantity of very fœtid, sanious pus. A counter opening was made higher up, and this also gave exit to fluid of the same character. When the soft parts were pressed, it did not appear that any communication existed between these two collections. The limb was then dressed and placed on pillows. A small bleeding was practised, and injections administered, in consequence of the bowels having been confined for some days. On the fourth day the eschar became detached, and left a large opening, which gave vent to an immense quantity of fœtid pus. On the fifth the disease had made further progress, and soon extended over the greater part of the limb, notwithstanding the repeated application of leeches.

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* A notice of one of those lectures will be found in our first volume.

In other situations, continued M. Dupuytren, diffuse erysipelatous phlegmon frequently terminates in resolution, but in the lower extremities suppuration always takes place. The cellular tissue of these parts passes as rapidly into suppuration as that about the eyelids. This termination is very unfavourable in diffuse phlegmon, and brings with it the destruction of the cellular membrane. In fact, the pus is poured out, not into one cell—not into a general cavity, but into each little individual cell, forming a numberless collection of distinct depôts. Thus, where suppuration takes place, the cellular membrane is destroyed in large pieces:—I have frequently removed portions half a foot long. The skin now becomes attenuated, and being deprived of nourishment, perishes from this cause, and not from inflammation. This consecutive gangrene of the skin is very common in the lower extremities, particularly the leg, where the arteries of nutrition (the anterior and posterior tibial and the peroneal) are deep-seated, and do not communicate with the skin, except by very minute anastomoses, and which are destroyed by the death of subjacent cellular membrane. This gangrene, however, is extremely rare on the head, where, nevertheless, this kind of phlegmon is frequent. The distribution of the arteries, however, is very different: situated between the skin and the occipito-frontalis aponeurosis, they are so united with the skin that it is difficult to separate them even in dissections.

If a phlegmon comes on in this situation, its seat is always between the pericranium and aponeurosis. if suppuration occurs speedily, and is limited to the cellular membrane, without implicating the pericranium, the disease is not mortal; but, on the contrary, it usually is so, if this part be destroyed or denuded. But the skin escapes destruction, because the arteries continue to supply it with sufficient nourishment: even if the whole of the cellular membrane of the cranium were to perish, it would not cut off the arterial supply to the skin. I have never seen but one case where the skin itself perished, and this occurred about two years ago.

The causes of diffuse phlegmon are numerous. It frequently results from bleeding, even when properly performed: so, also, the ligature of a vein may produce it; and in this, as in the preceding case, the vein itself may or may not be inflamed. The inflammation, in these instances, may occupy the whole thickness of the limb, or only the course of the vessel, and then it is only *diffuse* in a longitudinal sense. Diffuse phlegmon is the most frequent disease produced by morbid poisons applied to the skin or cellular membrane, as in the opening of bodies.

Excessive fatigue during forced marches is also one of the most frequent causes of diffuse phlegmon, which then presents such intensity, and is accompanied by symptoms so severe, as almost invariably to prove fatal. This malignity is owing to two causes—one local, the other general; namely, the fatigue of the lower limb, and the exhaustion of nervous energy, by the prolonged action of the muscles.

Persons who have suffered from comminuted fracture, particularly if produced by fire-arms, are very liable to a consecutive inflammation situated in parts adjoining the fractured bone, and this often assumes the character of diffuse phlegmon. It is also frequently seen after capital operations, and as a complication of various injuries, especially burns. It has also been known to follow the application of the linimentum ammoniæ to leech bites. Numerous observations also shew that it may arise from very slight punctures and wounds without any poisonous inoculation, or from a considerable muscular exertion, or even from the friction of rough clothing. Lastly, diffuse phlegmon is sometimes developed spontaneously; at least without any assignable cause.

I shall illustrate these statements by some examples.

Case III.—*Extensive diffuse Phlegmon of the left upper extremity from a bite on the little finger.*

—— Boyer, aged 27, a mason, provoked one of his companions, who bit him in the left little finger. The pain was very acute, and the part bled freely. The pain continued, and next day it was followed by tumefaction, speedily extending to the hand and fore arm.

Ten days after, the time at which he was brought to the Hôtel Dieu, the left arm was more than double its natural size; the skin was hot, very tense, and painful; the little finger exhibited a small transverse wound at its anterior surface, which implicated the skin, cellular membrane, tendinous aponeurosis, and from which issued a small quantity of whitish pus. Obscure fluctuation was perceived in the palm of the hand. A longitudinal incision was made there, from which a considerable quantity of pus flowed. The limb was placed in a half bent position on a pillow, and covered with emollient cataplasms. Besides these local symptoms, there was violent fever, with rapid pulse, hurried breathing, hot skin, &c. A large bleeding was practised, and soothing drinks and rigorous diet enjoined. The twelfth day from the accident, (the second of his admission into the hospital,) the patient was much better. An opening of considerable size was made on the cubital edge of the hand; and the upper part of the fore-arm being still tense and painful, thirty leeches were applied, followed by fomentations and cataplasms.

On the 15th day there was very marked fluctuation near the head of the radius: a free incision was made in that situation, in which musk was placed after the exit of the pus. The fever had disappeared. On the 29th day another opening had to be made at the front of the forearm, after which the health was speedily re-established.

Case IV.—*Diffuse Phlegmon of right arm from a thorn in the middle finger—Spontataneous Phlegmon of the lower extremity—Death.*

—— Renout, a female, aged 47, presenting the appearance of premature decrepitude, accidentally introduced a thorn into the middle finger. She could not give any precise account of the symptoms which followed, but it appeared by her account that the finger swelled, and that this soon extended to the hand, forearm, and arm; and that she was seized with gastro-intestinal disturbance. At the time of her admission into the hospital, three weeks after the accident, the hand and all the upper extremity were about three times their natural size. The pulse was rapid; the skin hot and dry; the tongue parched; the conjunctivæ red; the abdomen tender. The house-surgeon immediately bled her in the arm, and had the limb covered with cataplasms. Next day, forty leeches were applied to the limb, particularly about the hand. The cataplasms, fomentations, and semiflexed position, were continued, and produced great relief.

On the fifth day, however, the patient complained for the first time of pain in the knee. On examining it, considerable swelling was perceived, with fluctuation, without any discolouration of the skin. Twenty leeches, fomentations, and semiflexed position of the limb, were ordered.

On the seventh day, several purulent depôts were opened in the hand and along the inferior edge of the wrist: the bones were denuded. The state of the patient now excited great apprehension. The tumefaction had much diminished in the upper extremity, but that of the lower limb had augmented, and extended itself to the thigh. The gastric disturbance became intense, cerebral symptoms supervened, and the patient sunk the ninth day after her arrival in the hospital, notwithstanding the most anxious and active attention shewn to her case.

The facts just related, continued M. Dupuytren, give you some idea of the character of diffuse phlegmon; but we must enter more into particulars. The debut of diffuse phlegmon, and especially of that which is spontaneous, is announced by a rigor of greater or less severity: this is followed by heat and fever. This fever becomes continued, only it has paroxysms and remissions two or three times a day, and these have often led to such erroneous views as to occasion their being treated by means of cinchona, on the idea of their being attacks of ague. It is not unimportant to keep in mind the distinction between symptomatic and intermittent fever. A slight degree of pain of the skin frequently comes on 24 or 36 hours before the shivering. More than once, where this pain has been the only symptom, I have been able to predict the disease. The skin then becomes red, the tint being that of the rose. This colour is not uniform; and one might as readily anticipate an attack of simple erysipelas as of erysipelatous phlegmon, if a little œdema did not show itself in the subjacent cellular tissue, accompanied by perceptible pitting on pressure. What practitioner not familiar with the affection, could, from such appearances, foretel the approach of so terrible a disease?

The symptoms increase — the fever runs higher—the finger applied, pressed strongly upon the skin, no longer receives any depression, but encounters a marked resistance—the cellular membrane becomes hard—the colour passes into a violet, and phlyctenæ make their appearance — the bowels are sluggish—the urine is diminished or suppressed—the patient is deprived of sleep, and his agitation is extreme.

For two, three, or four days, the disease seems now to be stationary. If at this time an incision be made into the part, a milky serum escapes: it is abundant, and with but little pus. A few days later the serosity is scanty, while the pus is plentiful: yet a few days more, and there exudes a discharge as white as milk, and almost as consistent as lard. The cellular membrane is now struck with suppuration (*frappé de suppuration*,) and this is equivalent to saying that it is struck with death. Experience alone teaches one to distrust this deceitful stage: it has often enabled me to declare the existence of suppuration, contrary to the opinion of practitioners less accustomed to the disease.

At length, in a day or two more, the skin bursts, the phlyctenæ pierce the integument, and violet-coloured serum exudes. White or black sloughs are perceived beneath, which rapidly extend; the surgeon, then, only becomes aware of these ravages, when they have already run their course. When these portions of cellular membrane are removed, the skin is seen to be detached and undermined, so that it can be raised by blowing under it. Here and there little projections are seen—the only bond of union which remains, and these are composed of vessels and nerves which have resisted the destructive process. Great care must be taken to preserve them unimpaired.

The local ravages are now arrived at their term (when the skin has perished, as well as the parts beneath it), but not so the danger of the patient. You may be satisfied of this from the example of a man in the hospital, who had fallen upon his knee. An erysipelatous phlegmon supervened, and extended rapidly over the leg and thigh, notwithstanding the most active means. The aponeurosis of the thigh was exposed; the tibia and patella were bare to the periosteum; the entire limb was deprived of its cellular membrane and skin. What could the efforts of nature avail against such extensive mischief? Art was equally powerless. A suppuration of enormous extent, amounting sometimes to a pound and a half, or even two pounds, in the day, rapidly exhausted the strength; and this young man, though of the best possible constitution, unavoidably sunk under it. If, indeed, the suppuration were the only bad symptom, something might perhaps have been hoped for from the combined efforts of nature and art; but copious perspirations, and purging to the extent of from ten to twenty stools daily, were conjoined with the preceding. In vain were these also combatted, for yet another set of symptoms came on; almost always, indeed; towards the latter stage, does suppuration in the pleura, lungs, or liver, fill up the melancholy picture. More than one-half of such patients sink at last from internal inflammations, especially of the liver or lungs. Such is the history of this affection, which proves more fatal than any other of the phlegmasiæ.

Let us consider the chief points attending it. I have particularly alluded to the fever coming on in paroxysms, which appear two or three times a day; it is often mistaken for intermittent, but it is nevertheless a continued fever, and often accompanied by adynamic symptoms, which necessarily produce a change in our treatment. I have long insisted on this period of a deceitful arrest of the symptoms, about the fifth or sixth day, which keeps even the most experienced practitioners in doubt; and so far misleads the inexperienced, as to induce them to think resolution at hand, when suppuration is already declared. I have also dwelt upon the fact, that while in circumscribed phlegmon the pus is contained in one or two cells, here it fills each particular *cellule* of the tissue, and, after the manner in which when the muscular structures become involved in the disease, strangulation takes place, which is speedily followed by gangrene, unless relieved by free incisions. These attacks, less dangerous in children, are always alarming in adults—almost constantly fatal in elderly persons; while, if the patient escapes, the convalescence is of the most lingering kind, the cicatrization very difficult to effect, and the cicatrix always very ready to give way again. But one of the most important points to be attended to, is the state of the digestive organs which precedes, accompanies, or follows, the breaking out of this disease. Already, before it became the doctrine of our schools, had I pointed out the changes which are found in the alimentary canal after death; I shall therefore pass on to what is most important in reference to the treatment.

TREATMENT.—This form of inflammation may depend upon a cause which is either external or internal; most commonly it is the former, but complicated with internal symptoms. If a contused or lacerated wound be made in a person otherwise healthy, and who has no affection of the *primæ viæ*, it is very uncommon to see diffused phlegmon produced, or, at all events, it is easily combated; but, on the contrary, if gastric symptoms precede or follow the accident, symptoms of this kind of phlegmon come on too often without our being able to repress them. If a wound without internal complication give rise to it, though it be contused or lacerated, it must have been irritated by exposure, by violence, or by the friction of the clothes—in short, it must have been *envenomed* in some way or other. In the treatment, then, every thing calculated to cause irritation is to be sedulously avoided. If the wound appears to be becoming inflamed—if there be any engorgement of its edges—any tumefaction about it, leeches must be applied; and if the patient be robust, one or two general bleedings are required. It is often useful to precede the application of leeches by general bleeding; if the order be reversed, the leeches, in place of unloading the part, frequently cause an increased flow of blood to it, and thus augment the evil.

Bleeding, general and local, in diffuse phlegmon, ought to be accompanied by general, or at all events by local bathing. These must be of an emollient kind, such as poultices; or still better, cold, demulcent, and sedative applications to the part. If the cellular inflammation has commenced, the baths, leeches, cataplasms, sedatives, &c. must be again had recourse to; and this antiphlogistic treatment is that which is best adapted to the first stage, or onset of the disease. But if the part be tense—if the inflammation appears dependent upon strangulation of the parts, simple or crucial incisions must be practised without delay; and local inflammation is often thus arrested, and its spreading prevented. Rigorous diet and diluents are also indicated. There is, however, a third expedient which I have been in the habit of using—namely, a large blister to the wound and skin adjoining it. The irritation which it produces, and the suppuration, sometimes prevent the development of the diffuse phlegmon.

But if, before or after its appearance, there be gastric disturbance—if the tongue, without being red at the point and edges, is covered at the base with a yellowish coating—if there be loss of appetite, nausea, with little or no tenderness at the epigastrium, one, or even two emetics, may be advantageous; and gentle purgatives, if the intestinal canal is itself affected,—by which the course of the phlegmon is either suspended, or rendered less troublesome. It is a truth, said M. Dupuytren, of which you may be well assured, that emetics and purgatives, formerly too much employed, are now fallen into too great neglect[*].

If the phlegmon be fully developed—if, after a contused or lacerated wound, swelling of the parts comes on—if the cellular membrane adjoining be already œdematous, one or two small bleedings may still be of service: I say *small*, for by large abstractions of blood we run the risk of reducing the patient to an unpleasant state of depression. The remedies above-mentioned are to be assiduously put in force; the parts to be freed by incisions, and maintained in an elevated—very elevated—position, to obviate the congestion as much as possible; and the cold sedatives are to be systematically used. As to the cataplasms, so much used at other hospitals, I regard them as often injurious, by keeping up the local discharge. If the symptoms continue, or increase, I cannot venture to recommend blisters, having seen results so different from them, that I fear to apply them. Sometimes they produce a speedy resolution; but at others, though rarely it is true, they have evidently been the cause of sloughing. I am indeed the more anxious to insist on this point, because in various theses and other works, the success I have obtained has been much exaggerated. It is not in phlegmon alone, but in almost all cases of erysipelas, that I recommend these remedies, and, in fact, use them with great advantage. But if they be sometimes hurtful in diffuse phlegmon, still more frequently they exert no influence of any kind over it. About the fourth or fifth day the cellular tissue is almost always *struck* with suppuration. Ought, then, the pus to be left in these little cells, or ought we to hasten to set it free by incisions? Such incisions sometimes diminish the inflammation and suppuration which follows it; but, on the other hand, they also often increase them. It is necessary, then, at this stage also of the malady, to insist upon the application of leeches and refrigerants. But if the suppuration be definitively established, hesitate no longer; cut freely into those parts whose dependent situation renders them liable to become receivers of the pus; renew the dressings frequently, and take care each time that you do so, to remove all the pus with your sponges.

If, notwithstanding all your efforts, the skin perishes for want of nourishment, it is then above all that we must endeavour to support the strength of our patient, for it is then especially that adynamic symptoms are most apt to appear. If you cannot prevent them, meet the first symptoms with unirritating tonics, and those which follow with gentle antispasmodics. Spirituous preparations, and even wines, are hurtful; substitute for them an aqueous infusion of cinchona, and apply the bark itself externally to the parts[*]. It is at this time that the state of the cellular membrane comes on, which is designated by the expression, "struck with suppuration" (*frappé de suppuration.*) Sometimes enormous portions of the skin are detached; assist their removal, but carefully avoid any forcible pulling, and spare the attachments which remain between the skin and the subjacent parts. These bands consist, as has been said, of vessels and nerves; and their laceration gives pain, or even causes hæmorrhage, neither of which the patient can bear without injury. A new treatment now commences; it is here that the art of *dressing* becomes of importance. Wherever the pus collects, it must be freed by incisions, and evacuated by gentle compression, while the vitality of the skin must be stimulated by the application of cinchona, or spirituous lotions. By the combined efforts of nature and art, the skin in successful cases is seen to become, as it were, glued to the subjacent parts again, and we may then know that the danger is on the decline; and every thing is to be done to facilitate the cicatrization of the denuded parts. Sometimes the inflammation runs too high for this process, and then leeches and low diet must be again had recourse to. The exuberant granulations are to be kept down with nitrate of silver; and a solution of this is often very serviceable at this time, the strength being four, five, or six grains to the ounce.

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[*] This remark holds good in England also, with respect to emetics; but not, we think, with respect to purgatives.—TRANSLATOR.

[*] We remember to have seen wounds in the state here described, in French soldiers wounded at Waterloo, dressed with poultices made of powdered bark and water. Although tried extensively, no very conspicuous benefit resulted.—TRANSLATOR.

The following is the plan of dressing which ought to be adopted:—The edges, and a very small portion of the surface of the wound, are to be covered with little slips of bandage spread with cerate. In this way the laceration of the incipient portions of cicatrix is prevented when the dressings are again removed. The rest of the surface of the wound must be covered with compresses of fine soft linen, spread with cerate, and pierced with a number of holes, in the manner I have been long accustomed to adopt with respect to burns. The holes allow the matter to escape, which is thus prevented from remaining in contact with the wound; besides which, the great advantage is obtained of being able to remove all the dressings in one mass, and with the greatest ease.

During the whole period of treatment, the greatest attention is required to the diet of the patient, and to prevent him from the least exposure to cold or damp. I have opened a number of the bodies (said M. Dupuytren) of those who have sunk under this disease, and I have observed, that of those who died towards the end of this affection the phlegmon has seemed less the cause of death than some internal inflammation resulting from some imprudence. Pleurisy, pneumonia, and hepatic abscess, were the most common, and these followed exposure of the face, chest, or limbs, to cold. If the phlegmon be situated on the lower extremities, the patient must not be allowed to get up and walk: these movements give rise to determinations of blood, and this may prove the immediate cause of a return of the phlegmon, or erysipelas, scarcely less troublesome. Even when the cicatrix is completely formed, the degree of motion permitted ought to be very limited. Large cicatrices are apt to be lacerated, and this occurs in a singular manner: a little phlyctena filled with pus opens at one point, and leaves a greyish ulcer, like what we see in syphilis; the ulceration extends rapidly, and makes such progress that in twenty-four hours, more or less, the cicatrix is entirely destroyed. It is true that it is renewed with much less difficulty than before, and this accident is not always disadvantageous to the patient, for the primary cicatrix is usually very weak, and easily torn; but this weakness and proneness to laceration diminish every time it is reproduced, and sometimes it only acquires sufficient solidity after undergoing this process three or four times. It is then only that the patient can be regarded as completely out of danger.

ON DENTITION;

WITH AN

ATTEMPT TO EXHIBIT THE OCCASIONAL PRESENCE OF CERTAIN DISEASED CONDITIONS OF THE BODY,

As connected with its Irregular States.

By Dr. Ashburner.

[Continued from page 138.]

What is the period of life at which the first teeth are cut?

To establish this epoch so surely and correctly as that any deviation from it would be anormal, would be a very difficult matter. The works of anatomists and other writers may be consulted, and the time which they state will be found to vary. From the sixth to the eighth month of life is the vague definition given of the normal period of the first eruption of the teeth through the gums. (See Baumés, Prem. Dentit. p. 21.) Rarely earlier, often later it may happen. We have no means, as society is at present constituted, of arriving nearer to the truth. The modifying circumstances that surround us in every direction, tend so powerfully to irregulate the periods of organic development, that a variation is found to take place in the course of even those events which appear to be most completely under the influence of fixed laws. The period of gestation has been found to offer anormalities. The standard period has certainly not been minutely established, enough having been discovered to make us aware that varieties are often presented to our notice quite incompatible with the idea that the law has no exceptions. The development of the teeth offers, in respect to its periods, considerable irregularities, and the aberrations from the normal period are perhaps at no epoch more frequent than at that of the first cutting of the first set. The trains of growth have gone on so rapidly in respect to a few of the first teeth, that examples of children being born with two, three, or four, teeth cut, are not uncommon. Haller quotes nineteen cases of precocious appearance of the first teeth, and instances in other authors are not rare. (See Baumes, p. 20.) Few practitioners of extensive experience can be without some such cases.

No events exhibit the influence of modifying circumstances in the early history of development more strikingly than the accelerated growths of particular organs, and the disordered conditions of others, produced upon the infant by the habit of the nurse's system. I once saw a case of precocious appearance of two incisor teeth of the lower jaw, in a female child of three months old, which was nursed on the breast of a fine stout Irish woman, who had herself had two children cutting teeth at the same age, both of which had died from the rapid progress of dentition. The suckling was a delicate infant, and had a bowel complaint, which induced the parents to change the wet-nurse; and the child throve, and had no other teeth for five months afterwards.

In other cases the development is very tardy. I have seen a child twenty-two months old beginning to cut its first tooth, which was an incisor, in the upper jaw: it was a very delicate, though lively infant, with large head, tumid abdomen, and peculiarly small-sized extremities. Van Swieten relates a case of a very healthy female infant, which did not cut a tooth till it was nineteen months old. Serres quotes cases of persons cutting their first teeth, from Raymond, Fauchard, Brouset, &c. who had passed through several years of life. (Essai, &c. p. 75; also Baumés, p. 22.)

"Parmi les observations de Lanzoni," says Serres, "on en trouve une forte interessante, dont le sujet fut le fils d'un apothicaire. Ses premieres dents ne pousserent qu'à l'age de sept ans, et il ne commença à parler qu'à cette epoque."

I had, long before the Essay of Serres fell into my hands, observed so many cases of tardy access of speech, and of stammering, connected with erroneous development of the teeth, that I had noted the concomitance, for the future treatment of the fault.

The teeth of the first dentition commonly cut in couples; a short interval of time occurring between the appearance of each tooth, connected perhaps with the preponderant energy that obtains on one side of the body. The two anterior incisors of the lower jaw should appear first; then, after a shorter or longer period, perhaps from fifteen to twenty days, the two anterior incisors of the upper jaw come through: to these succeed the lateral couple of incisors in the lower jaw; then come those of the upper jaw. After these, the two molar teeth nearest to the lateral incisors of the lower jaw appear; then the first molars of the upper jaw. After which come the lower two canines; then the upper canine; then the two second molar of the lower jaw, and afterwards the corresponding molars of the upper jaw

As far as my experience leads me to conclude, the great majority of children who cut teeth with any regularity proceed in their dentition in the train I have indicated, and the period occupied in the process is about two years from the appearance of the first tooth. Baumés, in his Treatise on the First Dentition (p. 21), says that it is not commonly completed till the thirtieth month of the child's age. He adds, "Chez un assez grand nombre, la dentition est terminée à deux ans revolus."

The teeth cut through the gums, for the most part, in the same order in which they ossify. It is curious to observe how vague has been the knowledge of the best anatomists on this subject. They have copied from one another without much reflection, and have, for the most part, related the precedence of appearance of the canine teeth to the first molares. Baumés and Rosen (see Rosen on Diseases of Children, translated by Sparman, art. on Dentition), men of experience, continue the error.

De la Barre is the first author, in whose excellent Thesis, (Paris, 1806, p. 12,) as far as I know, appears the correct train. Serres takes credit to himself for having first indicated it, and, in a nettled spirit, De la Barre finds fault with Serres for having stated "une chose que l'experience dement positivement." (See De la Barre, Seconde Dentition, p. 33.)

The approximation to a normal order of eruption of the first dentition, may be thus attempted:—

Periods.	Teeth.
Seventh month after birth	Two central lower incisors.
Eighth month	Two central upper incisors.
Ninth month	Two lateral lower incisors.
About ninth or tenth month	Two lateral upper incisors.
About twelfth to 14th month	Four first molar teeth.
16th, 17th, 18th, 19th, to 20th month	Two lower canine teeth. Two upper canine teeth.
23d to 30th month	Four last molar teeth.

There is no circumstance relating to growth more striking, or more curious, than the division of life into epochs. The climacteric years of the ancients were multiples of seven; and they were pretty accurate observers of the changes which took place in the body at different periods. That there must be a rule regulating the grand epochs of development in a *perfectly healthy* individual, there can be no doubt. In the course of life, man appears, in the changes to which his frame is subjected, to go through several types of configuration: the same individual that had once, in the womb of his parent, the shape of a worm, and that subsequently rapidly traversed the types of other gradations of the lower animals, and became an infant breathing the surrounding air, is by no means to be recognized as *identical* with the vigorous man of thirty-five. His physiognomy alone points out the changes effected upon him, and we cannot doubt that there must be some ground for the vulgar observation that has come down to us, of the body undergoing remarkable changes during the course of successive climacterics. His progress through his varied types of configuration is dependent on the completion of each stage of his course. The measurement of time by chronometer—the indications of a completion of each advance of period—are illustrative of the trains through various successive types in the course of the development of a perfectly healthy person. The circumstances relating to dentition are but an isolated set of phenomena All the organs of the body should have their chronicles; but it will be found that they are the wheels and springs of the time-piece. The chief *index* is remarked in the organs of mastication, and they respond to epochs.

When the first dentition is complete, nature appears to rest. The teeth, in number and in size, being sufficient for the wants of the child, there seems for a time to be no further effort of growth among them. The principle of a continual progress is, however, established in the system. Though there is an apparent rest, there is, in fact, a real march in all parts of the body. The clock does not incessantly strike, but the hands are moving. The law which regulates the trains of growth throughout the body, insists upon an additional energy being communicated at certain periods to organs whose epochs of advancement to a type of more exalted perfection had arrived. It is not to be supposed that because the first set of teeth have all appeared, there is no change in progress in the jaws, or in the germs of the second set of teeth. The jaws are gradually expanding, and as they are becoming larger, the capsules of the teeth of the second dentition are preparing the organs they have to build for assuming their stations.

Let us consider the changes undergone by the jaws and by the teeth of the first dentition. When the progress of growth has extended so far as to render the first set of twenty teeth insufficient for the purposes of complete mastication, they appear to become loose in their sockets: in reality, an absorptive process is established, and their roots are eaten away. The pulp having first decayed, the crown crumbles away from the gums. Normally, this change takes place in the teeth exactly in the order in which they were originally formed, and in which they cut through the gums. The central incisors of the lower jaw fall away first; then those of the upper jaw, between which the growth of the bone has created a very remarkable space; then go the inferior lateral incisors; and so on. Before, however, any of the teeth of the first set fall out, the jaw has already acquired a considerable growth, and four molar teeth have appeared at the back of the existing twenty teeth. These four are permanent teeth: they occupy a large space, and their relations to the first set and to the teeth which are afterwards to appear, will be more advantageously explained after some further anatomical inquiries; and these must relate to the organs concerned in supplying the first and second set of teeth with nourishment, and the history of the changes they undergo, in order that the deciduous teeth, and the processes of bone which belong to them, may vanish, and allow the permanent set to grow up and take a normal alignement.

How are the teeth in the infant nourished? Are there any remarkable differences in the distribution of the arteries belonging to the first, and of those belonging to the second set of teeth?

Serres, whose ingenuity and whose anatomical labours have acquired for him some reputation, asserts, that the usual description of the arterial distribution in these parts is incorrect, (Essai, p. 16); while De la Barre is at some pains to show that Serres is in error, and has based his theory of dentition on a very small number of facts, (Seconde Dentition, p 65.)

The arteries that are given to the teeth come no doubt from the branches supplied by the internal maxillary artery; but the question is, whether the dental artery of the lower jaw has, up to the period of the shedding of the first teeth, two branches, running in two separate bony channels. In the Descriptive Anatomy of Bichat, (tom. iv. pp. 157-8,) where the best account of the dental artery is given, there is not a word said of the branch supplying exclusively the germs and teeth of the first dentition. Considering the jaw of the adult alone, the course of the artery is stated with sufficient accuracy. The disposition described has been established in the course of the second dentition; but Serres would contend, that up to the period when a change takes place by the falling out of the first set and the development of the second set of teeth, the jaw is so much crowded by capsules, that there would be hardly room for the main dental artery to pass to the dental hole, and he asserts that in the fœtus and in the child up to six or seven years, there are two canals and two dental arteries.

The inferior artery, occupying the inferior canal, he says, is large in the fœtus, but its area increases up to the third or fourth year of the child's life; then it becomes smaller gradually, and about the eighth or ninth year it is entirely obliterated. Sometimes, however, it lasts longer, and it has been found in a woman thirty-six years of age. In the child and in the fœtus, the dental artery is said by Serres to divide into two branches, between the condyle and coronoid process: one of these passes along the superior dental canal, and the other proceeds along the inferior. The superior artery up to three or four years does not require to be large in its area, its duty being to supply principally the germs of the teeth of the second dentition and the alveolar bands. The lower branch dips down into the inferior canal, proceeds in it as far as the first molar of the first dentition, without giving off any important branch: it gives a branch to this tooth, then it sends branches to the incisors and canines of the first dentition. Afterwards, it forms a full vascular network around the symphysis, and then proceeds through a hole under the canine tooth, where it anastomoses with the superior dental artery.—(Serres, p. 20.)

In the upper jaw, there does not seem to be occasion for two arterial branches. The germs have more space, and the dental branches of the superior maxillary artery are distributed to the two sets of teeth in free pencils, unshackled in their course from above to the germs by a want of due space.

When flat denials are made to the statements of anatomists of such reputation as Serres, it must be confessed that the subject is not at rest. The developmental anatomy of the jaws requires further investigation. The veins of the teeth follow the course of the arteries, and at last unite, becoming the internal maxillary vein. The bloodvessels supplying the teeth are by no means of a proportionate small size; on the contrary, considering the organs they have to nourish, the quantity of blood they convey is large.

The same observation as to volume is

applicable when the size of each nervous twig going to a tooth is considered, and it will be found that the sympathies propagated to various parts of the body generated by mischief occurring to the nervous parts of the dental matrices, the teeth, and the jaws, are very numerous. Anatomists have laboured well to make out the structure and distribution of the nerves of these parts. Derived from the fifth pair, they occupied the attention of Rau, who has given the ramifications of the fifth pair with great minuteness.—(Haller, Disput. Anat. tom. iv.) Vieussens followed the maxillary nerves up to the thread which is given to each tooth, and the elder Monro shewed that these threads went to the pulps of the teeth. But the fifth pair of nerves was a subject of intricacy and confusion until the genius of Sir Charles Bell unravelled the skein, and demonstrated the two distinct portions into which the nerve is separable; portions endowed each with a distinct property—the one sensitive, the other motor. The alliance which Sir Charles Bell has indicated between the fifth pair of nerves and the spinal nerves, may tend to dispel much of the intricacy which at present involves the connexion between irritations about the teeth and jaws, and the proneness to disease inflicted by them upon distant parts.

The dental nerves are branches of the superior and inferior maxillary nerves, which travel through their canals in the jaws. These supply the teeth of the second dentition. Serres asserts that the deciduous teeth are supplied with nerves from filaments of the maxillary nerves, which are lodged in channels hollowed out of the jaw-bone; and he has given the name of dental plexus to an interlacing of these filaments at the base of the incisors of the lower jaw. This curious configuration of nervous tendrils is said to waste by degrees, while the deciduous teeth are disappearing. So much blood, such a mass of nerves going to the teeth, do we conclude that these organs are wanting in vital properties? Mr. Bell, in his work on the Teeth, has set this question at rest. It is not only the germs or capsules which require blood for the purpose of carrying on the formation of the ivory and enamel, but that the teeth require a pabulum is very evident. John Hunter opposed this conclusion; and Serres, Geoffroy St. Hilaire, and others, have advocated his views on the inorganic nature of the teeth. Mr. Bell very justly observes, that Mr. Hunter's view can be accounted for only "by the extreme caution which he always observed in deducing general principles from isolated facts, and by the apparent incompatibility of different phenomena which were presented to him, arising from his having neglected, in the present instance, to follow out the reasoning to which they naturally gave rise." (On the Anatomy, Physiology, and Diseases of the Teeth, p. 9.)

It is said, that no vessels have been demonstrated by the process of injection. This cannot be allowed to be an argument of great weight against the existence of vessels in a tooth. The colouring matter of injections may be too coarse to permeate the delicate organization of so compact and resisting a substance as ivory. Mr. Bell states that jaundice affects the organic part of a tooth, rendering it yellow; and he had observed in persons who had died by hanging or drowning, the same "part coloured with a dull deep red." Teeth which have been pulled from the mouth and immediately reinstated, have sometimes adhered to the socket, but the colour of them is always different from that of the living teeth in their neighbourhood.

Let a fresh-drawn living tooth be contrasted with one that has been extracted a considerable time, and no doubt will remain as to the characters of each tooth. Indeed, Mr. Bell has, "on purposely breaking a tooth immediately after extraction, where the pain and inflammation have been severe, found *distinct red patches in the very substance of the bone.*" The observation of a case which occurred in the practice of the same scientific dentist, is conclusive upon the existence, not only of blood-vessels, but of absorbents, in the ivory part of teeth. He found a cavity formed in the very substance of a tooth communicating with the natural cavity, and filled with pus,—an example of inflammation, suppuration, and absorption.

The existence of pain may be considered as a sufficient evidence of vitality in an organ. The touching of an exposed portion of the ivory of a tooth with a pointed instrument, usually gives pain to the individual. A fracture of a portion of a tubercle from a good molar tooth in my own mouth, has exposed some ivory. The application to it of the juice of a fresh currant, of vinegar, or of lemon-juice, causes great pain There can be no doubt that teeth are organized bodies, and that the vessels and nerves with which they are supplied reach them particularly through the dental hole, but partly through the dental membrane surrounding the root, where it seems to be a medium of nourishment to the ivory. (See Serres, Essai, &c. p. 67.) The teeth and the jaws are under the influence of the laws regulating vitality: but the phenomena attendant upon the progress of each, are liable to deviate from the norma of a perfectly healthy state. The definition of the conditions of the rule of health is by no means easy. An approximation to the truth, in our statements of the events in the progress of growth, is all that can be attempted; and the influences modifying health in civilized communities, as our vanity teaches us to call the present congregations of individuals in society, renders our efforts more difficult as we proceed. The difficulty arises from the want of a standard. Where numbers are influenced by surrounding circumstances to err in the progress of healthy development, it becomes very puzzling to establish a standard of normal growth as to epochs, and sometimes even as to just configuration.

How are we to determine the standard of a proper size and shape of the jaws? and how can the ratio of size of the teeth to the jaws be fixed but by repeated observations on numbers of perfectly healthy individuals? It must be confessed that large cities do not afford the requisite data.

The growth of the jaws has not failed, however, to attract the attention of anatomists. John Hunter, who saw the importance of "a knowledge of the manner in which the two jaws grow," "to the understanding the shedding of the teeth," states that they "seem to differ in their manner of growing from other bones, and also vary according to age." In the fœtus, the jaw bones at various periods "increase in all directions, but more considerably *backwards.*" "Till twelve months after birth the jaw still increases in all points, when the bodies of all the six teeth are pretty well formed; but it never after increases in length between the symphysis and the sixth tooth; and from this time, too, the alveolar process, which makes the anterior part of the arches of both jaws, never becomes a section of a larger circle; whence the lower part of a child's face is flatter, or not so projecting forwards, as in the adult."

"After this time, the jaws lengthen only at their posterior ends."

The whole force of growth is, in fact, directed from the posterior part forwards; and the influence of this law is very remarkable in determining the direction, perhaps the size, of the teeth, and in modelling, perhaps, the shape of the face.

As the individual grows, from childhood upwards, we see remarkable alterations taking place in the size and shape of his jaws. At birth the lower jaw has hardly any angle; but at fifty or sixty it is so well marked that its presence is not doubted. After that time, perhaps another change may be perceived. If at eighty the teeth are all gone, the lower jaw has lost its alveolar processes; and in shutting the mouth the chin is thrown up, projecting much beyond the upper jaw, and coming into a line with the articulation. The angle of the jaw disappears, evincing a type of configuration very different from that at the middle term of existence. The same changes, though in a less remarkable degree, are observable in the maxillary tuber of the upper jaw—a part which may be considered as corresponding to the angle of the lower jaw.

If the jaws, then, undergo such remarkable changes in the progress of life, it is not unreasonable to suppose that there may be many circumstances attendant on their growth which must influence the arrangement as well as the configuration, and even the structure, of the teeth, which are organized bodies, supplied with large blood-vessels and nerves, and liable to diseases peculiar to their tissue. On the other hand, the development of the jaws themselves may, in a great measure, be dependent upon the relative progress of the teeth through all the phases of their existence.

De la Barre has remarked (Seconde Dentition, p. 96), that the growth of the jaws is dependent upon the successive development of the teeth; a truth which is but half stated, since normality requires a mutual influence, not sufficiently allowed for in our physiological reflections. The jaws and the teeth require, for healthy growth, a perfect consent, without which errors may be established in either. Let us inquire into the changes which take place in the structure of the jaws, as connected with the appearance and marshalling of the teeth of the second dentition, to which we may proceed after regarding the differences in the characters of the teeth of both dentitions; these present considerations evincing a difference in the types of configuration in the infant and in the adult, that are very remarkable. The teeth of the first dentition have consisted of twenty; of these, for each jaw, four were incisors, two canine, and four molar: these are sometimes called milk teeth, deciduous teeth, temporary teeth. They differ from their successors in number, in being smaller, partly in the form of some, and in the want of completeness of gradation in type which the presence of a larger number can afford.

The most considerable difference between the teeth of the two dentitions is in the characters of the double teeth. In the first set, the molares have crowns stronger in proportion to the roots, and the crowns are less elevated than in the permanent teeth.

A comparison is sometimes instituted between the deciduous molares and the teeth which are to replace them; and it is said that the teeth of the first dentition are here larger than those of the second. The comparison is not fairly instituted, for the small molar, or bicuspid teeth, have none analogous to them in the first dentition; they constitute the link which was wanting to a perfect gradation of character, from the teeth of simplest configuration to those of more complex structure. In the upper jaw they have more room generally, and the root bifurcates; in the lower jaw the bicuspid more resembles a single tooth. The teeth of the first dentition, which have been replaced by these, had four or five tubercles on their crowns, two fangs in the lower, and three in the upper jaw; so that they differ from bicuspid teeth in several important characters. The second molar of the first dentition is in every respect formed on the decided type of the double teeth, and far from having an analogy to a bicuspid, is, in fact, more bulky than the first permanent molar tooth.

[To be continued.]

FOWLER'S SOLUTION IN A CASE OF WORMS.

To the Editor of the Medical Gazette.

Sir,

In the report of Dr. Elliotson's lectures, in one of your late numbers, are the following expressions. The Doctor is speaking of the Ascaris lumbricoides. "It is far more common in children, and rarer as people grow old; it is usually found in the *small intestines*, occasionally in the large, or in the stomach; I have known a person vomit one."

If you think there is any thing worth notice in the following case, which occurred in my practice, it is much at your service.

A young woman applied to me, complaining of sickness, sinking at the stomach, want of appetite, and rather violent gastrodynia—not constant, but occurring at indefinite periods.

The treatment pursued relieved, but did not remove, those symptoms; when one day she was attacked with a regular and fully-formed paroxysm of intermittent fever, which assumed, to the best of my recollection, a tertian form. Having ascertained that there was no organic mischief about her, I gave her Dr. Fowler's solution of arsenic, in combination with some light bitter infusion. About two days after, she informed me that, immediately after taking a dose of her medicine, she was attacked with a violent pain in the stomach, with a sensation as of something moving; and a few minutes afterwards, becoming sick, she vomited either five or seven large lumbricales (the largest of which must have been, according to her description, six inches long at least), *all dead*. From that time the more obstinate symptoms of the gastric disease gave way—the intermittent affection only remaining. This was shortly cured, and, as far as I know, never returned.

Now two questions appear to me to present themselves here. In the first place, was the death of the worms owing to the action of the mineral solution? and in the second, if it were, might not a similar treatment be used with propriety (nothing in the shape of organic affection forbidding) in any case where the presence of the ascaris L., or even of the tape-worm, was either known or strongly suspected?

The first question, I confess, I am inclined to answer in the affirmative; as I can hardly consider the power of the infusion used to be equal to the production of such results.'

As to the second question, I am not so wild as to raise a *theory* on so slight a foundation; but as the means made use of do, in my judgment, appear to have had a very quick and most decided effect in this instance, and as, with proper care, they are easily adapted to all ages, might it not be worth while to give them a trial in a species of disease which is often both troublesome and dangerous, and not easily reached by ordinary means?

I may, perhaps, be telling my medical brethren what they knew before; but in a profession like ours, in which there is so wide a range for theory, I conceive that not only he who communicates a new fact, but even he who sets an old one in a new light, is at least worthy of some attention.

I am, sir,
Yours very obediently,
Lewis Evans.

Finsbury-Place, October 24, 1833.

REPLY TO A "FELLOW OF THE COLLEGE OF PHYSICIANS,"

By a Petitioning Licentiate.

To the Editor of the Medical Gazette.

Sir,

I am delighted to find that the College of Physicians have at length broken the dignified silence in which they appeared to delight, and that one of their number has stepped forward to defend their corporate monopoly. Permit me to offer a few cursory reflections on the letter of your correspondent, "A Fellow of the College of Physicians."

He begins by observing, "that the petitioning Licentiates are *pleased* to assert, that by the charter of Henry VIII. the perpetuity of the College was to be kept up by the future admission of all men of the same faculty into the College—a statement which has been overruled by the courts of law again and again." To which I reply, that the simple circumstance of its having been so ruled *again and again*, shews that parties were dissatisfied with the first decision of the judges, and that reasonable grounds existed for praying a revision of such decision. The dictum of the judges, in this case, was founded on the consideration of several clauses in the charter, but, while the following words stand part of it, the Licentiates may surely be permitted, without a sneer, to call the attention of Parliament to the predicament in which they are placed:—"Memoratis medicis concessimus, quod ipsi, *omnes*que homines ejusdem facultatis de et in civitate prædicta, sint, in re et nomine, unum corpus et communitas perpetua, sive Collegium *perpetuum*." Until lawyers can rail the words "omnes et perpetuum" out of this bond, judges may decide, but Licentiates will continue to be dissatisfied.

Your correspondent then asks, "What is it that the Licentiates covet? Is it the privilege of paying an annual subscription, or of examining candidates at a very inadequate salary, or the mere name of Fellow?" This question, sir, is very easily answered. The Licentiates covet all that the Fellows strive to withhold from them. Whatever privileges the latter wish to retain, the former desire to participate in. They covet the privilege of examining as well as of being examined, of eligibility to all the honourable offices in the first medical corporation in the kingdom. They are actually so unreasonable as even to covet an opportunity of becoming President of the College of Physicians!! They have that strange obliquity of perception, as to imagine that the elevation of such a man as Sir Gilbert Blane to the President's chair for three or four years, would have added lustre to the College. Honour is to them as dear as it is to the Fellows. Many of them covet not practice for the money that it brings, but for the station in society which it gives. These are the *spolia opima* which the Licentiates are struggling to gain a share of, and for the possession of which they would joyfully contribute their five guineas a year;—and can the Fellows of the College—men of liberal feelings, educated (as your correspondent justly remarks) in the same manner and in the same classes as the highest ranks of society—blame them for their anxiety to erase the mask of inferiority? I will not—

I cannot—believe it. I feel assured, that when once the voice of Parliament and of the nation has decreed that there shall be no distinctions among physicians, except such as arise from their age, experience, and general character in the profession, the Fellows will gladly abolish 'the obnoxious bye-laws (by-gone laws would be a more appropriate term) and receive into their body every physician whose competence to practise has been proved by an adequate examination. The Licentiates, in this respect, ask no indulgence. Let them be examined, if the College think fit, in Galen and Aretæus; but having been examined, and pronounced competent to aspire to the senior physicianship of Bartholomew's, Guy's, and St. George's, let them not be told that they are incompetent for the offices of Censor, Elect, or President.

But here, again, sir, I remember your correspondent, who escapes out of this net by informing us that any Licentiate, thirty-seven years of age, *really entitled to a distinguished rank in the profession*, may, after practising seven years in London, stand a chance of getting into the College, provided he will submit to a *second* examination, conducted before a *large body of men* whose various characters and attainments would render them a kind of check upon one another. Really, sir, I know not how the Licentiates can sufficiently express their gratitude for this boon. It is not enough that they have practised seven years in London with credit—it is not enough that they are "really entitled to a distinguished rank in the profession,"—they must go through the ordeal of an examination before the whole body of Fellows (at the *comitia majora* next after the feast of St. John the Baptist), and afterwards be *balloted for*. This, sir, is the special favour extended to those Licentiates who have distinguished themselves in the eyes of their professional brethren, by their moral conduct and learning (*tam moribus quam doctrina*) during the probationary period of seven years!

It is not to be wondered at that few have availed themselves of this liberal offer. Your correspondent remarks that there can be little doubt that if such a man were to express a *serious* wish to be examined in this fashion, the favour would be granted him. This is certainly an advantage gained, if it be true, as I have always been given to understand, that the only Licentiate who ever asked that favour (the late learned Dr. Wells) was *refused*.

As your correspondent is happily in a communicative mood, perhaps he would have the kindness to give some explanation of the apparent harshness in refusing to the Licentiates the use of the College Library, except under the same restrictions as apply to other members of the profession. I would especially direct his attention to the correspondence which took place, with reference to this question, in 1812, between Dr. Harvey, Dr. Bree, and Dr. Henderson; and respectfully venture to inquire whether the lapse of twenty years has made any alteration in the views of the College on the subject of access to their Library?

When your correspondent has replied, with the candour which I anticipate, to this question, I shall hope for your permission to address him once again, for much yet remains to be said.

> —— "Manet alta mente repostum
> Judicium Paridis."

I am, sir,
Your very obedient servant,
ONE OF THE FORTY-NINE.

THE LATE *RICE*-IBLE PROCEEDINGS OF THE BOLT-COURT SOCIETY.

To the Editor of the Medical Gazette.

SIR,

IF the shade of Fothergill could have been present at the exhibitions which have been got up at the London Medical Society during the last four evenings of its meetings, it must have blushed to witness such a perversion of those premises which might have been the patrimony of some part of his family. You are probably aware that the Society has had a series of entertainments, by Dr. Tytler, in which he has shewn them that rice has been the principal actor on the various stages of the world, of the great drama of cholera. The Doctor proved that it was not necessary for the London Medical Society to be supplied with *sound* reasoning, fair deductions, and logical conclusions; on the contrary, the grossest assumptions, the most barefaced statements, and the most disgusting egotism, were sufficient to command its attention for four nights, and to obtain for him *an almost unanimous vote of thanks*. The Doctor first began by stating, that a deteriorated rice grew in the East, in the year previous to the breaking out of the cholera at Jessore; that the eating of this rice produced cholera there; that its exportation into various parts propagated the disease; and that wherever the cholera prevailed, he had found this diseased rice to have been carried. It was in vain to attempt to stem this torrent of absurdity by asking how this diseased rice was delayed reaching our shores until 1832, when the cholera first appeared in England?—how the cholera should appear in the highlands of Scotland, where the inhabitants live on oat cakes, and do not know, and never saw, rice? or how it should appear in the huts of the Irish, who eat potatoes, and cannot buy rice?—how an infant at the breast, who never ate food of any kind, should be attacked with cholera? or how the English could be proved to have eaten this *red rice*, specimens of which the Doctor exhibited to the Society, and which was so different from the rice in common use in this country, that few of our cooks could be persuaded that it was rice, much less to have put it into their puddings? All these difficulties were got over by the following assumptions:—That cholera had prevailed in this country for many years unnoticed, and unknown to medical men; that he had seen an highlander who had lived on rice from his infancy; that a cargo of rice had entered the port of Liverpool, which must have been intended for Ireland; that the mothers of infants at the breast ate rice, and so conveyed it to the bodies of their offspring; that the red rice was bought at 1½d. per pound, submitted to the *expensive* process of bleaching; that it was then ground, mixed with the flour, and made into bread; and this latter was maintained in the face of the fact, that the *very best* wheat flour could be bought at 1¾d. per pound, ready to be made into bread, without requiring the process of bleaching or grinding. Letters and documents were read, proving that at Bilston and other places where cholera prevailed most extensively, rice was scarcely or not at all used as an article of food. "No matter," said Dr. Tytler; "if rice was used at all, it was sufficient to produce cholera;" the quantity had nothing to do with it. One gentleman stated that he had eaten a tablespoonful of this damaged rice, as an experiment, without any ill effects. "Oh," said the Doctor, "it would require a pound to produce cholera;" thus brow-beating the Society by these contrary assertions. A fact was mentioned of a lady who was in the habit of fattening fowls on this damaged rice: "True," said the Doctor; "a diet that might agree with animals might be poison to man:" and this was said in the face of statements which he had previously made, of its producing cholera in goats, and mortification of their genitals, and sloughing of the beaks, and mortification of the heads of fowls. Another fact was stated by a gentleman, that in some establishment where the cholera had prevailed dreadfully, very little rice had been used, and that of the very best quality, attested by the person who purchased it, and the price given; in answer to which the Doctor stated, that bad rice was not known by its price or by its looks, but by its effects; it was sufficient for him to know, that if cholera prevailed, bad rice *must* have been eaten. Another gentleman mentioned the fact of a child labouring under the choleric diarrhœa, and a decoction of rice having been ordered for it as a remedy, and the bowel complaint relieved. The Doctor, who misunderstood the matter, said, "to be sure," it was what he maintained, that rice produced cholera; but, upon being told that he had mistaken the communication, for that it stopped the complaint, "to be sure," he said, the rice having been all carried out of the body, the bowels stopped just *as he* was more successful than others in this disease, by giving purgatives.

One gentleman thought the subject worthy of *deeper consideration*, and that we ought to wait for a few years of cholera experience before we decided this matter. Whether for the benefit of succeeding ages he might wish to have a few thousands more of the present race sacrificed, to enable him to come to his long-drawn conclusions, I do not know; but I think if he requires so much time to make up his mind to a plain fact like this, it is a pity but that he had lived in the time of the antediluvians; he might then, in the course of some few centuries, have arrived at some few conclusions in medical knowledge.

I think, sir, I need not venture further in detailing the different Acts of the representation of this mono-maniacal farce. That the London Medical Society has suffered a disgrace, in tacitly acknowledging the value of such communications, I think is evident to all. As to Dr. Tytler, he is to be pitied: he has evidently been labouring under a delusion for years, and with his prepossessions, who can wonder at the zeal which he has displayed in endeavouring to propagate his rice doctrine? With the melancholy impression on his mind, that rice could occasion cholera and yellow fever, which he stated to have been produced at Cadiz by it, and all other "ills which flesh is heir to;" combining this its means of destroying the human race, with its effects as detailed by him of producing sloughing of the genitals, thus striking at the very roots of reproduction, he must have been horror struck' with the notion, that if mankind would so pertinaciously adhere to the eating of rice, that he himself was destined to realize the fiction, and become the hero of the poem of the *Last Man!!!*

In justice to the President, it is right to mention that he endeavoured to bring these mischievous proceedings to an earlier conclusion, but the *sense* (?) of the Society was against him.

By giving the above insertion in the Medical Gazette I shall be much obliged, and I think by it the public may judge how far they need, or need not, be afraid of eating rice.

I am, sir,
AN EYE-WITNESS.

Oct. 23, 1833.

ANALYSES AND NOTICES OF BOOKS.

> 'L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

Encyclographie des Sciences Médicales; Réimpression générale des Ouvrages periodiques sur ces Sciences publiés en France, savoir; &c. &c. Tomes I.—X. Dulau.

THIS is decidedly the most remarkable of the Brussels editions that we have yet seen—remarkable as almost all of them are for compactness and cheapness. Whoever wishes to have a complete medical library, and more particularly to keep pace with French periodical literature, cannot do without the Encyclographie. Its striking and chief feature is its economy, both as regards its price and the space it occupies. A single tome, which comes out monthly, contains a whole month's brochures published at Paris; and its capacity is enormous, for it swallows up no less than thirteen distinct periodicals—such as the Annales d'Hygiene, Gazette des Hôpitaux, and Journal Hebdomadaire; together with a long etcetera of *Memoires*, *Theses*, *Bibliographie*, and *Societés savantes*.

A New Method of making Anatomical Preparations, particularly those relating to the Nervous System. By JOSEPH SWAN.

WE are glad to find that this useful and very ingenious work has just appeared in a third edition. It cannot fail to be productive of much good, now that anatomy may be studied above-board, and free from those restrictions which hitherto rendered it a clandestine business. The beautiful productions of Mr. Swan—both his preparations in the College Museum, and his splendid plates of the nerves—must make every anatomist anxious to avail himself of the experience of such a guide; and the information which the author here liberally affords, will shew that he is no churl about it, nor desirous of being reputed a dealer in secret arts.

MEDICAL GAZETTE.

Saturday, November 2, 1833.

> "Licet omnibus, licet etiam mihi, dignitaten *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."
> CICERO.

RESPONSIBILITY OF MEDICAL PRACTITIONERS.

OUR continental brethren are just now engaged in a discussion in which they they exhibit more *esprit de corps* than we had ever given them credit for: they contend boldly for the indefeasible rights of the profession; and if they do not go so far as to maintain the infallibility, they do at least the perfect *irresponsibility*, of all medical men who have been regularly educated.

The circumstances out of which this discussion has arisen, occurred not long since, in the vicinity of Strasburg. A physician of Epfig was brought before the authorities, on a charge of malapraxis, preferred by his patient and three medical men:—but we had better give a brief statement of the facts from the lengthened reports before us.

Early in February, this year, a labouring man, while working in a quarry, had his right leg broken by a fall of stones and clay upon it. Both bones were fractured obliquely; there was an external wound, and the tibia protruded. M. Mistler, a doctor of the faculty of Strasburg, was called in. He found the leg enormously swollen; the toe pointed outwards, the heel turned in. He presently reduced the fracture, applied Scultetus's bandage, with splints furnished in the usual way, and finally placed the limb in the suspensory apparatus of Sauter, with due precautions of having the cloths frequently moistened with a cold fluid application. Some gangrenous appearances were perceived at the second visit, but they were treated successfully with chloruret of lime and camphorated spirit. The wound, however, which was occasioned by the protrusion of the bone, continued to suppurate, and threw off small splinters, till about the sixth week, when it cicatrised. About the eleventh week, M. Mistler tried to make his patient walk, but the callus was too weak; so he re-arranged the limb, and recommended it to be left so till it was perfectly consolidated. The leg was at this time as long and as straight as its fellow; there was only observable a slight prominence of about a line at the lower and inner margin of the superior fragment.

Up to this moment the attendance of the Doctor gave the highest satisfaction to the patient and his friends; when all of a sudden he was assailed with a heap of invective: he was accused by them with having maltreated the case, and he was told that other medical men would be called in to try and repair the injury.

Three medical men were accordingly procured—a physician, and two *officiers de santé* (the lowest order of recognized practitioners)—who proceeded to find fault with every thing. They would not hear the expostulations of M. Mistler, who offered to refer the matter to a physician of the town; they cried out against the Sauter apparatus—against the use of splints—against the delay that had occurred in the consolidation, which they said should have been effected in six or eight weeks; and, in fine, they broke the callus, treated the new fracture after their own fashion, and drew up a *procès verbal* against M. Mistler, which was sent to the Procureur du Roi, at Schelestatt.

The cause came on in due time before the tribunal of the first instance. M. Mistler demanded to have the matter referred to the profession; his opponents strongly objected to the demand; and what was most provoking, M. Kling, their advocate, set no bounds to his abusive tirades; he denounced M. Mistler as one of the most ignorant of men, and said that he ought to be expelled from the Faculty. The judges, however, thought proper to appoint professional reporters to decide on the conduct of the parties; and these were M. René Calliot, Dean of the Faculty of Strasbourg, and M. F. Lobstein, Professor of the same learned body, along with M. Serrand, a physician of Schelestatt.

We pass over a long detail of facts

given in the report; but the conclusions at which the respectable referees arrived were the following:—1. That M. Mistler's treatment of the case had been methodical, rational, and conformable to the principles of the art; that consolidation of a complicated fracture might be retarded for several months, without any blame being attachable to the surgeon; and that the conduct of M. Mistler appeared to be free from all imputation of neglect. 2. That with regard to the charges of the opposite party, they (the reporters) could not sufficiently understand on what grounds they were made; nor could they help entertaining doubts of the fidelity of the statements laid before them. 3. With regard to the patient, it was certain that he would still be some months under cure, but he would not be crippled.

This report was not only signed by the referees already mentioned, but received the full concurrence of M. Foderé, who was consulted by the defendant; and in consequence, the following award was made by the legal tribunal: "That the charges brought against M. Mistler were frivolous and vexatious; that no imputation rested on his character; that the patient had no claim to compensation, but, on the contrary, should pay all the costs; and that M. Mistler might insert in the public papers, at the expense of the patient, a full report of the proceedings."

Such has been the *dénouement* of the affair; now let us come to the remarks of the editor of the *Gazette Médicale* upon it. This spirited writer deplores the circumstances which obliged the defendant to waive his "right of irresponsibility," and to submit to a trial of his peers: and he complains bitterly of one part of the conduct of the referees. "Why have we not found," he asks, "both in the defence of M. Mistler, and in the report of the medical jury, a clear and strong protest in favour of that essential principle of all medical institutions — irresponsibility?" "For," he goes on to argue, "the moment a professional jury give a verdict, whatever it may be, on the conduct of one of their medical brethren, they betray their duty and their rights. Let the verdict be favourable, no matter; for if they have a right to pronounce their approval, they have also a right to censure: and the right of censuring being once vested in medical men to be exercised over their brethren, we cannot sufficiently denounce the mischievous consequences to which the principle may lead. Physicians, we repeat, and we shall never cease to maintain, owe it to their profession to defend their imprescriptible right to irresponsibility. The regularly-educated medical man has given to society all the guarantees that can well be demanded of him: nor can medicine be practised on any less condition. We do not quarrel with the liberality or the ability of the learned reporters: they were actuated, no doubt, by a desire to do the defendant every justice; but we dread to think what might have been the result in other circumstances; and above all we blame them for having neglected to state and to insist upon the grand and fundamental principle of—irresponsibility."

We confess we have been not a little amused by the tone—the almost "Ercles' vein"—in which the matter is taken up by our foreign contemporaries (for other periodicals beside the one just quoted have also discussed the point); we were not prepared to find our continental neighbours, with their existing arrangements of *police médicale*, attempting to make such a stand for the independence and dignity of the profession; and it naturally occurred to us to compare the state of things of which they complain, with what has long been customary among ourselves.

What, it may be asked, would be the

result in this country in a charge of malapraxis like that just now detailed? The court in which it should be tried would depend on the injury done to the patient; were it to prove fatal, an indictment for manslaughter would doubtless be made out; and in a less serious termination, an action for damages would lie. But at all events, if the question of injury were mooted at all, it would be so before a jury of twelve unprofessional men; and the very fact of proposing to refer it to a medical jury, would most probably tend to prejudice the defendant's cause. In a well-known trial which took place a few years ago, Sir Astley Cooper, Mr. Abernethy, Sir Charles Bell, Mr. Brodie, Mr. Travers, and Mr. Green, appeared as witnesses for the defendant, and were unanimous as to the perfect propriety of the surgical treatment he had employed; but the jealousy of the jury was aroused by the very unanimity of so strong a phalanx of authorities; they were told that it was an attempt to tamper with their important and sacred functions; they believed it; and the very thing that ought to have got a verdict for the defendant, proved, owing to the circumstances, the cause of his defeat.

It is but too true, that medical men have not even the most remote legal claim to irresponsibility in this country; and this is to be added to the number of discouraging circumstances under which medicine is pursued in Great Britain. In almost every other calling, an error of judgment may be committed, without entailing serious consequences on the party who has erred. The legislator may be grievously mistaken in his notions of what is for the public good; and the financier may indulge in blunders of political economy, and by so doing cause the ruin of thousands; the barrister, from want of industry or zeal, or from ignorance of the law, or inability to conduct the case, may suffer his client to become the victim of poverty and distress; and who knows not how the "cure of souls" may be abused—nay, converted into their "loss," by the neglect, misconduct, thoughtlessness—nay, the immorality, of a reverend incumbent? Yet who, in any case of individual and even unquestionable injury, would or could bring any of those offending parties to justice? The offence is generally visited only by the censure of those who have immediately suffered from it, or whose minds are for the moment directed to the circumstances; but let there be the least room for imputation on the skill of a medical man, and he is treated as if he had no right to share in the human infirmity of error. It may be very flattering to our vanity, in one point of view, to know that so much perfection is supposed to be attainable in our art; but when we find the same public which visits so unrelentingly the errors that, in the ordinary course of events, will sometimes happen, treating with indulgence and even encouragement the dangerous practices of charlatans—then do we feel that we have a right to complain; and though we do not go the lengths of our professional brethren on the Continent, in claiming to be accounted irresponsible, we certainly think it but just that we should be entitled to a little liberality. Our quacks alone may be said to be irresponsible; for unless they commit some gross and egregious crime, which in any circumstances would draw down on them the heavy hand of the law, they may pursue their ordinary route of petty poisoning, homicide, and swindling, without being called to an account for it by any one. They are *as much* protected by the law of the land as any member of either of the Colleges or corporations; and while they thus enjoy equal immunity, and contrive often to reap more profit than the regularly educated, and are besides troubled with no qualms of conscience, *who that pretend to belong to the profession have better reason to be considered irresponsible?*

But the Editor of the *Gazette Médicale* is not only dissatisfied that medical men are held to be answerable for mischances—he thinks it a hardship that they should be tried by their peers. He is inclined to quarrel with the professors of Strasburg for consenting to be umpires between the public and the profession; and though in this instance it fell to their lot to have nothing but what was good and favourable to say of their *confrère*, yet he shudders to think that it might have been otherwise, and that one more precedent might thus have been added to the dangerous proceedings of professional arbitration, and the possibility of passing a verdict of censure on a member of the medical profession.

To us this seems to be the height of fastidiousness. How deplorable might have been the result if the Faculty of Strasburg had declined to interfere, and the eloquence of M. Kling—like that of Brother Cross, or Brother Taddy, in a similar conjuncture—been allowed to operate on the by-standers and the public! In the English trial to which we have already alluded, it is well known how different would have been the result if the verdict had been left to a medical arbitration instead of to an ignorant jury, who knew as much about the difficulties of medicine as they did about the mysteries of Eleusis: and what, we would ask, might not have been the issue of the late investigation at Liverpool, had not the medical officers of the Manchester Infirmary very properly and laudably accepted the reference which was made to them, and maturely weighed the circumstances, and returned their verdict with all becoming solemnity? They did not, indeed, enter their protest against the fitness of such a tribunal; nor did they waste their breath in *preaching up the doctrine of medical irresponsibility*: it would have been a mere mockery if they had; for the law of the land is explicit on that point. So, we say, let us but have, on all occasions, a fair and suitable jury of our peers, and we shall be content in every case to abide the issue.

MORTALITY OF THE LATE ATTACK OF CHOLERA IN PARIS.

It appears that the whole number of individuals seized up to the 21st inst. was 328, of whom 186 were men, 142 women; but the mortality has been much greater among the latter. Of the 186 men, 72 died; while 73 women out of the 142 fell victims to the disorder; that is to say, the mortality of the males was 38, while that of the females was 51, per cent.

ALDERSGATE STREET DISPENSARY.

On Saturday evening last, a very numerous and highly-respectable meeting of the Westminster Medical Society adopted unanimously a series of resolutions, which will be found in another page: and addresses to the late medical officers from various parts of the country we are glad to perceive still continue to be forwarded. There cannot be a doubt of the strong sentiments of approbation respecting their conduct which are entertained in all quarters. We have given insertion to several of those addresses, and in our present number one or two more will be found; but we think it needless to go on printing others which may hereafter be sent us: the feeling which prevails is general, and we are happy to find that it has been boldly and unequivocally expressed by all those whose good opinion is worth having. The following letter, which we must say has nothing to recommend it to our notice, except the appeal in the first paragraph, may amuse some of our readers, though it will fail to convince any:—

To the Editor of the Medical Gazette.

Sir,

As there are few subjects upon which a difference of opinion does not exist, I shall hold myself excused in giving publicity (should you deem this communication worthy of insertion) to sentiments at variance with the generally *expressed* opinion relative to the late transactions at the Aldersgate-Street Dispensary. I shall consider the subject under three heads:—

1st, As regards the interests of the charity itself;—2dly, The conduct of the late medical officers;—and 3dly, As it affects, or should affect, the characters of the present medical officers.

As I do not consider that the existing law of election either increases or diminishes, in a material degree, the permanent pecuniary interests of the charity, the question rests on the election of competent medical men. The objections to the present mode of election appear to be, that it enables a man to purchase the situation; or, as it is contemptuously termed, *buy himself in.* The inference drawn from this is, that merit without money is excluded.

I regard the benefit to be derived by the patients as the paramount consideration; and could I view the contest as a question of merit, should necessarily advocate the total abolition of every law involving undue influence. But if we consider the motives which induce men to become candidates, and the unavoidable impurities of the modes of election (independently of the law in question,) we shall find that merit forms a very inconsiderable part of their claims. The candidates for such situations are generally young men, known only to their immediate friends, and heard of probably for the first time by the great body of governors, through the medium of their advertisements. Their motives are a laudable wish to obtain a more extensive field of observation, and a justifiable ambition to make it a means of rising in their profession. Men of extensive practice, or already-acquired celebrity, seldom, if ever, enter the arena. It is hypocritical cant to affirm, that such situations are sought after *from the pure and disinterested motives* of dispensing benefits to our fellow-creatures.

It is impossible, therefore, that the electors at large can know more of their future officers than that they have passed the requisite ordeals, and are all in consequence equally meritorious. Influence, then, of one kind or other, must sway the election, and the merits of a candidate who happens to possess the more powerful interest, or of him who has the heavier purse, stand equally high. It is to me an enigma how the dignity of the profession suffers less in the person of one who stoops (for if it be stooping in one case, it must be so in the other,) to be puffed off by his friends among the governors, than of another who with less influential interest aids his claims by the assistance of his purse.

With regard to the conduct of the late medical officers, they were justified certainly, when left in a minority, but by no means called upon to resign. In opposing the opinion of a majority of the governors, they avowedly acted on a public principle: they resigned from private motives. I call them private, because they had by no means previously ascertained the feeling of the medical public on the question, and because the same law exists in many other Dispensaries in this metropolis, which have, and I trust will continue to have, the benefit of talent no less distinguished. They evinced, moreover, a feeling on the subject of electing successors which can be considered in no other light than discreditable.

It will be perceived from what I have said, that I unconditionally approve of the motives which induced the gentlemen now in office to come forward. There was no return for their predecessors, without glaring dishonour, whilst the law stood as it is; and the majority of the governors insisting that it should so stand, they were to all intents and purposes excluded. There was undoubtedly a feeling in favour of their views expressed by a considerable portion of the profession; but the candidates had good reason, from personal knowledge, to be assured it was not universal, and the medical officers of other Dispensaries, where the objectionable law existed, still continuing to hold their situations, was strongly corroborative of its being but partial. Under these circumstances, the field being open—the charity in a great measure destitute of the means of relieving the poor — I contend that no other feeling than that of justifiable ambition was necessary to induce candidates to come forward, and that they who have been successful are as free from any charge of having cast a stain on the character of the profession to which they belong, as any who now do, or ever have held, similar situations.

Your obedient servant,

J. J.

October 28, 1833.

WESTMINSTER MEDICAL SOCIETY.

RESOLUTIONS ON THE CONDUCT OF THE LATE MEDICAL OFFICERS OF THE GENERAL DISPENSARY.

At a meeting of the members of this Society, held at the Hunterian Museum, on Saturday, October 26th, Mr. Pettigrew, President, in the chair, it was moved by Dr. Gregory, seconded by Mr. Griffith, and resolved unanimously—

That in the opinion of this Society, the interest of the sick poor, and the respectability of the medical profession, equally require that the appointments to public charities should be free from the suspicion of being open to purchase.

Moved by Mr. Chinnock, seconded by Dr. Ryan, and resolved unanimously—

That in the opinion of this Society, the regulations lately adopted by the Governors of the General Dispensary, Aldersgate-street, permitting any person to attend, and vote personally, who should become a governor seven days prior to the election, amounts virtually to the sale of the professional appointments.

Moved by Dr. Webster, seconded by Mr. Millington, and resolved unanimously, with the exception of Dr. Epps—

That the cordial thanks of the Westminster Medical School are due and are hereby given to Drs. Birkbeck, Clutterbuck, Lambe, and Roberts, and to Messrs. Salmon and Coulson, for their noble and disinterested conduct in resigning their offices rather than tacitly assent to the introduction of a law which compromises the honour and independence of the medical profession.

Moved by Dr. Copland, seconded by Dr. Sigmond, and resolved unanimously—

That the most respectful thanks of this Society be tendered to his Royal Highness the Duke of Sussex, for his liberal and enlightened conduct in retiring from the Presidency of the General Dispensary; thereby marking the sense his Royal Highness entertains of the conduct of the medical officers in resisting the adoption of a most obnoxious and pernicious regulation.

Moved by Dr. Somerville, seconded by Mr. Hunt, and resolved unanimously—

That in the opinion of this Society, any physician or surgeon who shall avail himself of such a law, and thus virtually purchase a professional appointment in any public charity, forfeits thereby his claim to the respect of his professional brethren.

Moved by Dr. Somerville, seconded by Dr. Sigmond, and resolved unanimously—

That the Society pledges itself to bring this, amongst other grievances, before such committees as may be appointed by the House of Commons to inquire into the practice and regulations of the medical profession.

Moved by Dr. Jewel, seconded by Dr. J. Wyat Crane, and resolved unanimously—

That the thanks of the Society are justly due, and are hereby tendered, to the medical practitioners of Sheffield, Cork, Nottingham, and other provincial towns, for their readiness to stand forward in support of the dignity of the medical profession.

Moved by Mr. Stodart, seconded by Mr. Greenwood, and resolved unanimously—

That these resolutions be signed by the chairman, in behalf of the Society, and that they be inserted in the several medical journals, and following daily papers:—The Times, Herald, Chronicle, Globe, and Standard.

T. J. Pettigrew, Chairman.
Edwd. Stodart, Secretary.

ADDRESS FROM MACCLESFIELD.

To the late Physicians and Surgeons of the Aldersgate-street Dispensary, London.

Gentlemen,

As the time is now arrived when it is impossible for observations from any quarter to prejudice the question between the Aldersgate-street Dispensary Committee and the late medical officers of the institution, we, the undersigned medical practitioners of Macclesfield, beg to express our admiration of, and thanks for, the high-spirited stand which you have made against a system calculated to introduce into the profession a mercenary spirit, which would inevitably destroy, in the appointment to public medical offices, competition based upon the honourable principle of superiority of professional attainments.

Elected yourselves, to your late stations, upon worthy qualifications, we consider that you have shewn an elevated sense of what is due to the profession, and more especially to the public, in preferring to sacrifice your appointments rather than to consent to a measure which would quench the spirit of medical emulation, and consign the interest of the indigent sick to the care of the best bidders for the charge—who, of course, would be the least dignified members of the healing art.

At a period when the public has decidedly declared itself against bribery and corruption in all the great institutions of the country, we feel that any attempt to pollute the medical profession with such debasing means ought to be treated with public obloquy; whilst the most honourable testimony should be rendered to those men who have stood forward to ward off, at all personal risks, so degrading an infliction.

To you, then, gentlemen, we offer our sincere thanks for your manly resistance of the objectionable measure introduced by the Committee, and we feel confident that the profession at large will, with us, consider your retirement as an honourable self-devotion in the defence of principles which, though for a time suspended, must eventually triumph over the sordid spirit of pecuniary influence, applied to a liberal science.—We have the honour to be,

Gentlemen,
Your obedient servants,

Thos. Slacke, M.D.; Thomas Roberts; James Cockson; F. F. Lallemand; John Fleet; George Bostock; John Braithwaite; Thos. Swanwick, M.D.; W. B. Dickenson; Edward Milner; Edward Foden; John Birchnall; John Waggstaffe; Thomas Hordern.

NORTHAMPTON MEETING.

VOTE OF THANKS TO THE LATE MEDICAL OFFICERS OF THE ALDERSGATE-STREET DISPENSARY.

Northampton Infirmary, Oct. 5, 1833.

At a numerous meeting of the members of the medical profession resident in this and the neighbouring counties, held at the Infirmary this day, the following resolution was adopted unanimously, or rather passed by acclamation:—

"That this meeting, taking into mature consideration the nature and bearings of the dispute betwixt the Governors of the Aldersgate-street Dispensary and the late Medical Officers of that institution, are unequivocally of opinion that the said officers have vindicated their own honour, and the honour and dignity of the medical profession, in the noblest manner, by resisting a regulation which strikes at the root of honourable and talented competition for medical offices, and opens the door to ill-disguised venality and intrigue.

"This meeting is furthermore of opinion, that the late medical officers of the Aldersgate-street Dispensary, by the spirited and independent manner in which they have acted, are well entitled to the support and sympathy, the thanks and applause, the approbation and admiration, of the profession at large.

Signed by A. Robertson, M.D.
Chairman,
and 50 other Medical Practitioners.

MEDICAL GALVANISM.

M. Palabrat has been engaged for some time past in endeavours to discover the most convenient method of introducing remedial substances into any part of the body, by means of a galvanic current.

That this can be effected is easily shewn by employing such chemical agents as exert a visible and easily obvious re-action upon each other; thus, if we lay a compress well wetted with the hydriodate of potass upon one arm, and upon the other a solution of starch, a fine violet colour is immediately manifested upon establishing the circuit; if iodine be used, instead of the hydriodate, it is speedily found deposited upon the starch. It may be said that the substance which is thus invisibly transmitted from one part of the body to another, follows the surface of the skin, and is not conveyed directly through the interjacent textures, which are the moist conductors and firm part of the galvanic arc. M. Palabrat is of a different opinion, and rests it on some experiments, in which he not only well dried the skin of the arms, but covered a part of it with a gum-lac varnish; and yet there was not any interruption to the galvanic phenomena. By proper management, the medicinal substance which we wish to be transmitted, may be caused either to remain in the body of the patient or to be withdrawn from it. If we desire the former, it will be necessary to employ acupuncturation at the same time.

M. Palabrat assures us that he has met with very satisfactory success in the treatment of some cases which had resisted all ordinary remedies. he mentions particularly a case of enormous sarcocele, and one of obstinate quartan fever. In the former, iodine was passed through the tumor; in the latter, quinine was introduced into the system.

The memoir was intrusted to MM. Magendie, Becquerel, and Savart, who are to report upon it.—*Med.-Chir. Rev.*

POISONING BY THE FUMES OF ARSENIC.

A MAN, who was a manufacturer of the blue pigment used in painting china, and his servant, were engaged in boiling a mixture of nitric acid, of cobalt, and of arsenic. All of a sudden the mattrass burst with an explosion, and the room was filled with the fumes. The servant leaped out at the window, and thus saved himself; his master was less fortunate—he was knocked down, and found himself incapable of rising; he lay on the floor, till his servant returned by the door to drag him out. After eight days' most severe suffering, he died: his body had become enormously swollen. This was the case with the servant also, but in a less degree: in the course of forty-eight hours the abdomen was as large as that of a woman at the full period of pregnancy. He was taken into the Hôtel Dieu, and derived much relief from purgatives and baths. On the third day after his admission, he passed a quantity of fœtid gas from the bowels, and experienced immediate comfort. The tympanites was gone, and he left the hospital well.—*Ibid.*

SPECULUM URETHRÆ.

M. GUILLON has presented to the *Société de Médecine Pratique* of Paris an instrument by which he can see the ulcerations to which the mucous membrane of the urethra is subject. His speculum consists of a very delicate silver tube, highly polished in the interior, and about four inches and a half long. Eleven-twelfths of its length is provided with an opening equal to two-thirds of the diameter; its borders, of course, rounded and turned in, to provide against accidents. At the extremity is a small telescopic reflector, suitably inclined. Another reflector, five inches in diameter, and shaped like a truncated cone, is then so adapted as that, by the agency of a common lamp, light may be thrown in on the interior of the passage; and thus the affections of the anterior three-fourths of the spongy part of the canal may be very commodiously discerned. —*Gazette des Hôpitaux.*

BRISTOL MEDICAL SCHOOL.

IT gives us much pleasure to find that Bristol is no longer without its complete medical school. The new establishment was opened on the 14th of October, under the auspices of Dr. Carrick, who delivered a very interesting address on the occasion. Mr. Hetling also made an inaugural oration on the subject, in commencing his surgical course at the Infirmary. We have received reports of both, but are sorry we cannot find room for any extracts.

DR. ASHBURNER has requested us to notice an inaccuracy which occurs in his article on *Dentition*, at p. 109, col. 1, l. 27, of our last number. For the sentence commencing "Serres remarks," &c. and ending "of a nature *sui generis*," he wishes the following to be substituted:—

"Serres remarks, that the external membrane has a decided elasticity, and compresses the fluid, which, with Hunter, he places within the inner membrane.—(Essai, p. 13.) The external is, according to Meckel, more spongy, lax, and soft, and more thick than the internal membrane, which Serres declares to be very thin, transparent, and of a nature *sui generis*."

WEEKLY ACCOUNT OF BURIALS,

From BILLS OF MORTALITY, *Oct.* 29, 1833.

Abscess . .	1	Fever, Scarlet .	20
Age and Debility .	47	Fever, Typhus .	2
Apoplexy . .	4	Heart, diseased .	1
Asthma . .	13	Hooping-Cough .	13
Cancer . .	1	Indigestion . .	1
Childbirth . .	1	Inflammation .	35
Cholera . .	2	Bowels & Stomach	8
Consumption .	71	Brain . .	5
Constipation of the Bowels . .	1	Lungs and Pleura	10
Convulsions .	34	Liver, diseased .	3
Croup . . .	3	Measles . .	10
Dentition or Teething	5	Mortification .	2
Diabetes .	1	Paralysis . .	4
Dropsy . .	13	Small-Pox . .	8
Dropsy on the Brain	11	Spasms . .	2
Dropsy on the Chest	3	Stone and Gravel	1
Dysentery . .	1	Thrush . .	4
Erysipelas . .	1	Tumor . .	1
Fever . . .	6	Stillborn . .	13

Increase of Burials, as compared with the preceding week . . . } 12

METEOROLOGICAL JOURNAL.

Oct. 1833	THERMOMETER.		BAROMETER.	
Thursday . 24	from 39 to	60	20 63 to	29·55
Friday . . 25	44	60	29·45	29·39
Saturday . 26	41	58	29 39	29 50
Sunday . . 27	37	60	29 61	29 66
Monday . . 28	37	59	29 60	29·70
Tuesday . . 29	35	62	29 70	29 76
Wednesday 30	39	61	29 89	29·97

Prevailing winds, N. E. and S. E.

Rain in the night of the 27th, otherwise generally clear.

Rain fallen, ·15 of an inch.

CHARLES HENRY ADAMS.

ERRATA.

In Mr. Maclure's paper in our last No. page 116, line 31st from top, *for* "history," *read* "state;" and in the same page, line 19th from bottom, *for* "state," *read* "fate."

W. WILSON, Printer, 57, Skinner-Street, London.

NOVEMBER, 1833.

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PHYSICIAN TO THE ST. MARY-LE-BONE INFIRMARY, ETC

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London Med. and Surg. Journal.

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THE

LONDON MEDICAL GAZETTE,

BEING A

WEEKLY JOURNAL

OF

Medicine and the Collateral Sciences.

SATURDAY, NOVEMBER 16, 1833.

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LECTURES ON THE THEORY AND PRACTICE OF MIDWIFERY;

Delivered at the London Hospital,

By Francis H. Ramsbotham, M.D.

Lecture VI.

FEMALE ORGANS OF GENERATION.

INTERNAL ORGANS.

The internal organs of generation consist of the *vagina*, the *uterus*, and the *uterine appendages*, —which latter are two *broad ligaments*, two *round ligaments*, two *ovaries*, and two *fallopian tubes*.

Vagina.—The *vagina* is a musculo-membranous canal, running up the centre of the pelvis, leading from the external parts to the os uteri, in its progress describing a curve even greater than that of the sacrum and coccyx, having the neck of the bladder, the urethra, and the symphysis pubis anteriorly, and the rectum behind. In length it is about four or five inches; in circumference about three. It varies much, however, in different subjects, and is capable of extension to an extraordinary degree. In married women, and those who have had a family, it is considerably more capacious than in virgins; it is also observed to be wider in the middle than at either extremity, and longer on its posterior surface than anteriorly. It is composed of three coats—an external, cellular; a middle, muscular; and an internal, mucous. The external coat is merely a collection of condensed cellular structure, by which it is attached to the parts surrounding it. The middle coat is muscular, and the fibres follow different directions; some are longitudinal, some transverse, and some oblique. It is observed that these muscular fibres are much more numerous at the commencement of the vagina than at any other part. Here they seem arranged in concentric circles, taking their origin from the sphincter ani, to which formation anatomists have given the name—improperly, in my opinion—of *sphincter vaginæ*. The internal coat is mucous, and is a continuation of the membrane which lines the external parts; it is collected into transverse, or rather oblique rugæ; and from this circumstance it has also obtained the name of the *rugous coat* of the vagina.

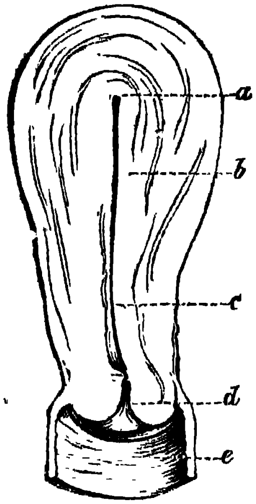
These folds are much more apparent in the virgin, than in women who have borne children; and, like the muscular fibres, they are found in the greatest number at the lower end, near the commencement. Here [presenting them] are two preparations, one the vagina of a virgin, the other of a woman who has had a family. You will observe the rugæ distinctly marked in the former, while in the latter this peculiar appearance is quite obliterated. In the interstices of these folds are placed a number of follicles, which, independently of the mucus poured out by the vessels proper to the membrane itself, secrete a fluid of a peculiar character. The membrane is puckered thus principally for the purpose of allowing the distention of the vagina during the passage of the child's head.

This organ is very plentifully supplied with blood-vessels, with nervous filaments, and absorbents. It obtains its blood through branches of the two uterine arteries, which are given off from the internal iliacs or hypogastrics. The common iliacs divide into two channels, the external and internal; the internal descends into the pelvis, over the sacro-iliac syncondroses. From them arise the uterine arteries, which run up one on each side of the vagina, and in their course give off four or five transverse branches, which supply the vagina itself. Its nerves are principally derived from the sacral plexus; its veins accompany the arteries; and the absorbents pass in two directions, one division to the glands in the sacrum, and the other to those in the groin. The vagina is connected then below with the external parts by a continuation of structure; anteriorly, with the symphysis pubis, the urethra, and the neck of the bladder, by cellular membrane; above, with the cervix uteri; and behind it is attached to the rectum. The commissure connecting the two organs is called by anatomists the *recto-vaginal septum*. It runs down in connexion with the rectum through a great part of its extent; and you might suppose that the orifices of these two canals would be close together, almost touching each other; but this is not the case; for the vagina, at its lower end, turns at an angle forwards, while the rectum, just before terminating in the anus, is directed somewhat backwards, a space of about an inch in extent being left between them, which you will recollect is called the *perineum*.

The secretion of the vaginal membrane, in the ordinary healthy state of the parts, is pretty exactly balanced by the natural absorption, so that there is little or no exudation externally; but under peculiar states of excitement, under some diseases also, as well as under labour, the secretion much exceeds the absorption, and a discharge appears outwardly.

Uterus.—At the upper part of the vagina, hanging in the centre of the pelvis, behind the bladder and before the rectum, with its superior edge somewhat peeping up above the brim of the pelvis; supported in this situation by two ligaments which run from its sides to the ilea, and by the vagina which is below, we observe the *uterus, matrix*, or *womb*, the organ destined to receive, to afford lodgment and nourishment to, and eventually to expel the ovum. The uterus is derived from the Greek *υστερα*.

In shape the uterus is somewhat triangular, or rather like a flattened pear; and it is observed to be rounder on its posterior face than anteriorly, from which circumstance, in the unimpregnated state, we can always distinguish the right from the left side. In length it is about three inches; in width, at the widest part, it is about two inches; and in thickness pretty nearly an inch. It varies, however, in different subjects, being in some degree larger in women who have borne many children, and smaller in virgins. Anatomists, for the facility of teaching, describe it as though it consisted of four parts; to the upper third they give the name of *fundus*, to the middle the name of *body*, and to the lower third that of *neck*; while its opening into the vagina they designate the *os uteri*, or *mouth of the womb*. Now the three first of these divisions are perfectly arbitrary; there is no septum in the uterus, no line of demarcation either externally or within, by which we can point out their limits; not so, however, with regard to the os uteri, which is the means of its communication with the vagina—a natural aperture.



Longitudinal section of the uterus, about three-fourths the natural size.—*a*, the fundus uteri; *b*, its body; *c*, the cervix, *d*, the os uteri; *e*, a small portion of the upper part of the vagina. The central line shews the direction of the cavity.

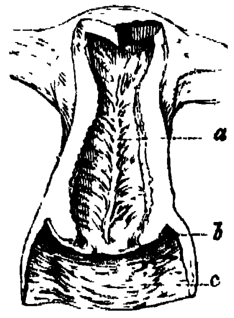
The uterus is covered externally by the peritoneum; it has a cavity which is lined by mucous membrane, and a peculiar parenchymatous structure between the two. The peritoneum, after having lined the abdominal muscles, rises over the bladder, giving a covering to a very considerable portion of that viscus; it then passes from the neck of the bladder directly backwards to the cervix uteri; it mounts over the uterus, and descends on the back part somewhat lower than in front, dipping even a little beneath the os uteri, and affords an external coat to a very small portion of the vagina, separating the uterus entirely from the rectum; it is then continued from the upper part of the vagina to the lower gut, and ascends to embrace the bowels. From the sides of the uterus processes are sent off, which constitute the broad ligaments.

The parenchymatous structure of this organ is of a very dense character, in appearance much resembling a half-tanned hide. On making a section of it, we observe a great number of very minute tortuous vessels running throughout its whole substance, in the unimpregnated state scarcely capacious enough to receive the finest injection; but they take upon themselves a process of growth as soon as conception has occurred; and towards the end of pregnancy are sufficiently large in calibre to admit the introduction of a goose-quill—at least many of them are.

The parenchyma of the uterus is generally described by anatomists as being muscular; but there is even now some difference of opinion as to whether it is muscular or not. My father strongly insists upon the non-muscularity of this organ; and in this respect he follows two very great physiological authorities, Bichât and Blumenbach: the latter was of opinion that the uterus possesses a structure perfectly *sui generis*, unlike that of any other organ in the body. He says, "I have never yet discovered a true muscular fibre in any human uterus which I have dissected, whether impregnated or unimpregnated, recent or prepared;" and again, "I am daily more convinced that the uterus has no true irritability, but a *vita propria*, provided such may be allowed to any part of the body. This organ appeared to possess properties so peculiar to the ancient physicians and philosophers, that it was by them denominated an animal within an animal." This last idea, indeed, originated with Plato, who describes it as one animal living within another, controlling all the actions of the vital system, burning to sate itself with the fluid most congenial to its wants, and to digest it for the purpose of forming another being. On the contrary, in the present day anatomists regard it as merely a part of the whole economy, and most of them are in the habit of describing it as muscular. Some indeed tell us they can easily point out its muscular fibres. Vesalius described three strata of muscles, transverse, perpendicular, and oblique; Malpighi speaks of them as arranged in a kind of net work; Ruysch maintains that they appear at the fundus, forming an orbicular muscle; while Dr. Hunter delineates them as transverse in the body of the uterus, but at the fundus sweeping in concentric circles round each of the fallopian tubes. Sir Charles Bell is the last anatomist who has given us any particular dissections of the muscular fibres of the uterus, and he professes to demonstrate them as easily as in any other organ. He says, "The substance of the gravid uterus is powerfully and distinctly muscular. Towards the fundus the circular fibres prevail; towards the orifice the longitudinal fibres are most apparent; and, on the whole, the most general course of the fibres is from the fundus towards the orifice. This prevalence of the longitudinal fibres is undoubtedly a provision for diminishing the length of the uterus, and for drawing the fundus towards the orifice. At the same time these longitudinal fibres must dilate the orifice, and draw the lower part of the womb over the head of the child."

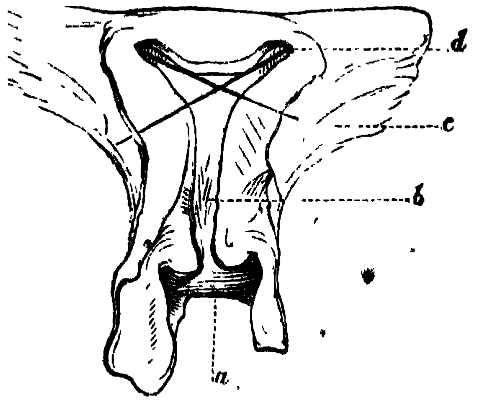
I shall not myself enter into the controversy whether the uterus is muscular or not, partly because my mind is not definitively made up on the subject, and partly in deference to the opinion of my father. I can only say, that if it be a muscular organ, the muscles, for their size, possess a much greater power than any other in the body; that they are of a different character to most muscular fibres, for instead of being red, fleshy, and bulky, they are thin, spare, and pale; and as it is an established doctrine, that in general the stronger the muscle the more florid its appearance, we ought at least to expect that these minute fibres in the uterus, which possess such extraordinary powers of contraction, would be of a transcendently deep colour. However, I shall leave you to determine the question for yourselves; and I would recommend you, as most anatomists agree in this respect, to call it a muscular organ.

This viscus, then, contains a cavity which is lined by mucous membrane, being a continuation of that lining the vagina. The membrane is puckered into longitudinal or arborescent striæ towards the mouth of the womb, more evident in the virgin than in women who have had children. This formation is denominated the *arbor vitæ*. In the infant, the whole inner membrane is corrugated. Here [exhibiting it] is a preparation taken from a young subject, in which these rugæ are very evident. The cavity is somewhat similar in shape to the external form of the uterus—that is to say, it is rather triangular, and large enough to contain a split almond. In the cavity there are three apertures, two at the angles of the fundus, the uterine apertures of the fallopian tubes, and one below, communicating with the vagina, the mouth of the womb. It is worthy of remark, that the uterine apertures of the fallopian tubes open into the cavity not directly in a straight line opposite to each other, but somewhat obliquely; from which arrangement two bristles passed along the fallopian tubes would cross each other at a considerable



Infantile uterus laid open to shew the rugæ of its inner coat. — *a*, the inner membrane of the uterus; *b*, the os uteri; *c*, the upper part of the vagina.

angle when received into the uterine cavity.



The uterine cavity laid open.—*a*, the os uteri. *b*, the cervix uteri: the longitudinal lines shew the appearance called arbor vitæ. *c*, a portion of the broad ligament. *d*, the uterine extremities of the fallopian tubes, with a bristle inserted into each.

The opening into the vagina is called the *os uteri*, *os tincæ*, *os internum*, or the *mouth of the womb*, and by it a free communication is permitted between the cavities of the vagina and the uterus. (The phrase *os tincæ* has been applied, from its fancied resemblance to the mouth of a tench fish.) But we are not to suppose that the uterus is connected with the vagina by a direct continuation of their separate structures; on the contrary, the vaginal coats run up a few lines above the orifice, to terminate at the cervix uteri; and the mucous membrane is reflected over its mouth, to line it within; so that the os uteri pouts and projects somewhat into the vagina, at an angle, looking considerably backwards, towards the centre of the hollow of the sacrum. In the adult subject, the os uteri is of an oval shape, the slit being lateral, so that it is divided into an anterior and posterior lip. Thickly studding the os uteri, as also the cervix, we observe a number of glands—follicles, if you please—which are scarcely percepticle in the healthy uterus of the virgin; but they enlarge very much in some diseases, and particularly under pregnancy, during which state they become very evident, as you may see here [presenting a specimen.] With this increase of size a new office is afforded them, and they pour out a thick, tough, pellucid, gelatinous mucus in considerable quantities, which blocks up the entrance to the cavity of the uterus, and breaks off the communcation between it and the vagina; and as long as this mucus remains *in situ*, no fluid can be injected into the uterus. Here [presenting it] is the cervix uteri of a cow, in which the mucus is very plainly shewn.

The uterus is very liberally supplied with blood-vessels, with nerves and absorbents. The arteries are from two sources; one set, the *spermatic*, descend, as we shall see delineated in Tiedemann's plates, from the aorta, below the renal arteries, sometimes by one trunk from the anterior part of that vessel, and sometimes by two trunks, one on each side; at others, they have been known to take their origin from the renal arteries. They descend with the same tortuous inflections as the spermatic vessels in the male do, forming the appearance called the pampiniform flexus, supply the ovaries, and afterwards run along the broad ligaments, to expend themselves in the uterus; — the other the *uterine*, which are given off from the internal iliacs, and anastomose very freely with the uterine branches of the spermatic. By these two sets of vessels, then, a very copious supply of blood is allowed,—one originating high up in the loins, and the other low down in the pelvis. The veins follow the course of their respective arteries. The spermatic have the same termination as the spermatic veins in the male—the right in the inferior cava, the left in the renal vein. The uterine veins empty themselves into the internal iliacs. The nerves also are from two sources: one supply is derived from the lumbar ganglia, the other from the great sympathetic; and it is through the filaments of the latter nerve that most of the vital organs of the body, especially the stomach, sympathize so completely with the uterus, as well under disease as under pregnancy. The absorbents also run in two directions, one into the lumbar and sacral glands, and the other through the round ligament into the glands of the groin. I suspect, in the healthy unimpregnated state, the uterus itself is not particularly sensitive. The connexions, then, of this organ are with the sides of the pelvis, by the broad ligaments which principally support it; with the vagina inferiorly; with the neck of the bladder anteriorly, by cellular substance; and with the groin, by means of the round ligament. It cannot be said to be connected with the rectum, because the peritoneum dips down sufficiently low to separate it perfectly from that gut, giving an outward tunic to a small portion even of the vagina. In this respect the posterior differs materially from the anterior surface of the uterus, because we have demonstrated a direct connexion between the cervix uteri and the neck of the bladder, by cellular tissue.

In most of the mammalia, the uterus is divided into two convoluted chambers, one on the right, the other on the left side, quite distinct from each other, but communicating with the same vaginal orifice; so that it assumes a double cornuated appearance—each cornu answering to the fallopian tube in the human subject. In monkeys it par-takes more of the human shape; having, however, a slight depression at the summit of the fundus, exactly in the centre. Not only in external figure, therefore, but in the shape of this as well as other viscera, this order of beings seems to form a connecting link in the chain of nature between man and the lower animals.

Broad ligaments.—The next organs that I shall describe are two of the appendages of the uterus, and are called the *broad ligaments.* They are extensions of the peritoneum, running, as you see in this accurate cast made by the late Mr. Joshua Brookes, from the angle of the fundus of the uterus, horizontally to the brim of the pelvis, and are merely duplicatures of the peritoneum, containing within, on their upper ridge, the fallopian tubes; at their lower part the ovaria; and also blood-vessels, nerves, and absorbents. These ligaments have been called, in consequence of their shape, spreading out from the sides of the uterus, as it were, like the wings of a bat, the *ala vespertilionis.* There is also another extension of this ligament on each side, which is not usually described, but well shewn in the cast, consisting of two processes that run to the sacrum and lower lumbar vertebræ; they, in conjunction with the lateral ligaments, are for the purpose of supporting the uterus in its situation, while hanging in the centre of the pelvis, and of guiding it in its ascent to the abdomen during the middle months of pregnancy.

Ovaria.—Between the folds of each broad ligament, dangling as it were at the lowest part, at the distance of about two inches from the uterus, we have a round glandular body, about the size of a small flattened nutmeg, to which we give the name of *ovarium*, and which was called, previously to the time of Stetonis, who first asserted that these glands were analogous to a true ovarium, the *female testis.* Enclosed within this duplicature, it obtains its external covering from the peritoneum; its surface in consequence is smooth and shining. When a section is made, a number of small cavities are observed, varying in size, from the minutest shot to that of a small pea, the lesser being within, the larger more towards the surface. The fluid which these cavities contain is pellucid and coagulable by alcohol, heat, and the strong acids; composed, therefore, principally of albumen. In number they vary from 15 to 20 in each ovarium. They are called, after the name of their first describer, *vesiculæ Graafianæ.* We may remark them sometimes actually rather eminent upon the surface. In the course of my dissections, I have, in one subject, seen two or three projecting under the peritoneum, studding the external surface of the gland like beautiful little pearls, and on pricking them the fluid has exuded. We do not see these vesicles at all previously to puberty before the ovary is developed; they disappear towards the close of life, when the gland is shrivelled by age; and are found in the greatest number, and most apparent, in the adult virgin. In the married woman we observe, besides these vesicles, other bodies, to be presently mentioned. The vesiculæ Graafianæ have been supposed to be real ova, and from thence the term ovarium has been derived. This idea is now exploded; but we are perfectly satisfied that they contain whatever the female supplies towards the formation of the embryon—their contents passing into the fallopian tube, to amalgamate with the male semen, and, in conjunction with it, to call a new being into existence.

Corpus luteum.—In the ovary of a woman, then, who has had a family, we observe, besides these vesicles, which are not so numerous as in a mature virgin, some little solid bodies, the size of a small pea, of a yellow or light brown colour, to which we give the name of *corpora lutea*, and which are supposed to be cicatrices, left by the escape of a corresponding number of vesiculæ Graafianæ. When the minute sac containing the fluid bursts, it is believed that the rupture of a vessel is occasioned. This vessel sheds a drop of blood into the cavity which before contained the fluid; the thinner parts become absorbed, while the more solid become organized; and this is supposed to be the origin of the corpora lutea. You may observe a splendid example in this preparation [exhibiting it].

The corpora lutea, till lately, were considered true tests of impregnation having taken place; nay, many physiologists of considerable reputation, among whom I may mention my respected friend, Dr. Thatcher, of Edinburgh, (to whose instructions I owe much of my obstetrical information), regard them still as sure signs of a woman having conceived. I am led to hold a contrary opinion, from the experiments of Haighton and Blundell, which I think have set the question perfectly at rest. A buck and a doe rabbit were allowed to be sufficiently close to observe each other, but were not permitted to come together. After the heat had passed away, the doe was killed, and although she was a virgin, and had never had communication with the male, corpora lutea were distinctly observed in her ovaries. This experiment has been repeated over and over again, and generally with the same results.

I have said that the ovarium supplies whatever the female provides towards the formation of the new being. This is proved to demonstration by spaying animals, an operation which consists in taking away the ovaries. When both these bodies are removed, the subject has no longer any desire for copulation, loses the characteristics of her sex, and assumes more or less those of the male. This is remarked in all animals, but is particularly observable in the feathered tribes. If the ovaries be removed from a common domestic hen, she soon becomes decked with somewhat of the cock's plumage, her voice becomes changed, and instead of her usual cackle, she utters an imperfect crow. In the female of the human subject long straggling hairs grow upon the chin, the breasts become flabby, being deprived of part both of their fat and glandular structure, the skin loses its soft smoothness, the voice becomes harsh and discordant, and the individual might easily be mistaken for a male. Nor are the moral less influenced than the physical properties: sexual feelings are destroyed, and the delicacy of the female character disappears. This change was strictly exemplified in Mr. Pott's celebrated case, where both ovaries were removed in an operation for hernia. Similar results, indeed, take place, as are observed after castration of the male: so that to the presence of these little bodies, the testes in the male, and ovaria in the female, are to be attributed the distinctive physical marks and moral attributes of the two sexes.

The ovarium, then, is the most essential part of the female organs, and is universally found in the sexual genera of animals. They are very liberally supplied with blood from the spermatic arteries.

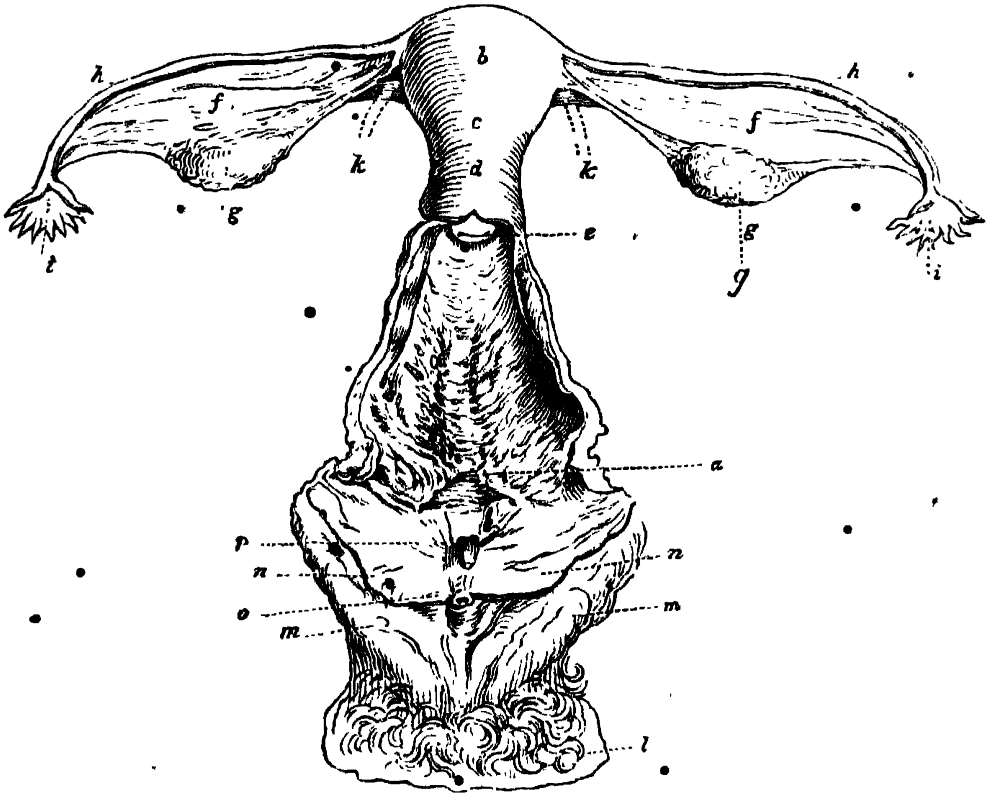
In birds, the ovarium resembles a bunch of grapes; in snakes, a string of yellow beads.

In young hens, the ovarium is said to contain about 400 yolks, from the size of a pin's head to their largest magnitude. The ovarium in fishes encloses an almost incredible number of ova. In a perch, of one pound two ounces, there were found 69·216; in a mackerel, of one pound three ounces, there were 129·200; in a carp, of eighteen inches in length, Petit found 342,144; and in a sturgeon, of one hundred and sixty pounds, there were 1,467,500.

Fallopian Tubes.—Running along the upper edge of each broad ligament there is a pervious canal, having two open extremities—one end communicating with the uterine, the other with the peritoneal cavities: to these we give the name, after their first describer, of *Fallopian tubes.* They are about four inches in length; they are covered externally by the peritoneum; possess a middle coat of muscular fibres, which run longitudinally, transversely, and obliquely, and an internal mucous coat, a continuation of the mucous membrane lining the uterus. At the abdominal extremity they are fringed, as we may see in the specimens on the table, and float loose and unconnected;—to this part of the tube the name of *fimbriated* extremity is given; from its office it has been called the *morsus diaboli*—the devil's bite. The mucous membrane which lines the tube is continued to the *fimbriæ*, and it is the only instance in the body where a mucous and a serous membrane join by continuation of structure—the only example, then, of a mucous membrane terminating in a shut cavity.

It is through this tube that the ovum, after impregnation, passes into the uterine cavity; and the mode in which it is effected is supposed to be the following. By its own inherent muscular power, the fallopian tube under the *œstrum venereale*, erects itself somewhat like a snake raising its crest. By the same inherent muscular power it directs itself to the ovarium, it widely spreads its fimbriæ, expands itself upon the external surface of the gland, closely embraces it, and squeezes from it the contents of one or more of the vesicles of De Graafe. Freighted with their precious cargo, the fimbriæ approximate each other, close the orifice, before wide spreading and patulous, and a motion somewhat like the peristaltic action of the intestinal canal is then set up in the tube, by which means the ovum, now impregnated, traverses the length of the canal until it drops into the uterine cavity. We have both negative and positive proof of the strongest kind, that the ovum passes through the fallopian tube before it arrives at the uterus—*negative*, because there is no other canal through which it can be conveyed, there being no direct communication between the ovarium and the uterus; *negative* also, because, if we follow the experiments of Blundell, and cut away a portion of the fallopian tube from each side, so as to destroy the continuity of the canal, we prevent conception, although we do not take away the desire for copulation;—but further, we have *positive* proof, because an impregnated ovum has been frequently found within the tube; it has been arrested in its transit, formed a bed for itself within the dilated canal, and there grown; constituting a species of that disease termed *extra-uterine conception.* Thus we cannot for a moment doubt that the ovum travels along the fallopian tube to gain the uterine cavity. The sensation commuicated to the finger by squeezing the tube, is very much like that of the spermatic cord. It is hard, firm, and wiry. In its office it is analogous to the vas deferens of the male.

Round ligaments.—We have next to describe the *round ligaments* of the uterus—two small circular cords, made up of a congeries of vessels which, arising from the sides of the fundus of the uterus, anterior to and rather below the fallopian tubes, run along the broad ligaments until they arrive at the sides of the pelvis. They then leave the broad ligaments, and, turning forwards, take their course round just below the brim, eventually pass out at the ring of the external oblique muscle, and are lost in the groin and parts adjacent. They consist of a congeries of blood-vessels, nerves, and absorbents; and by them a direct communication is kept up between the uterus within the pelvis, and the groin on the outside. It is through this direct communication that, in some of the malignant diseases of the uterus, the glands in the groin take upon themselves unhealthy action, and become enlarged, indurated, and occasionally ulcerated.

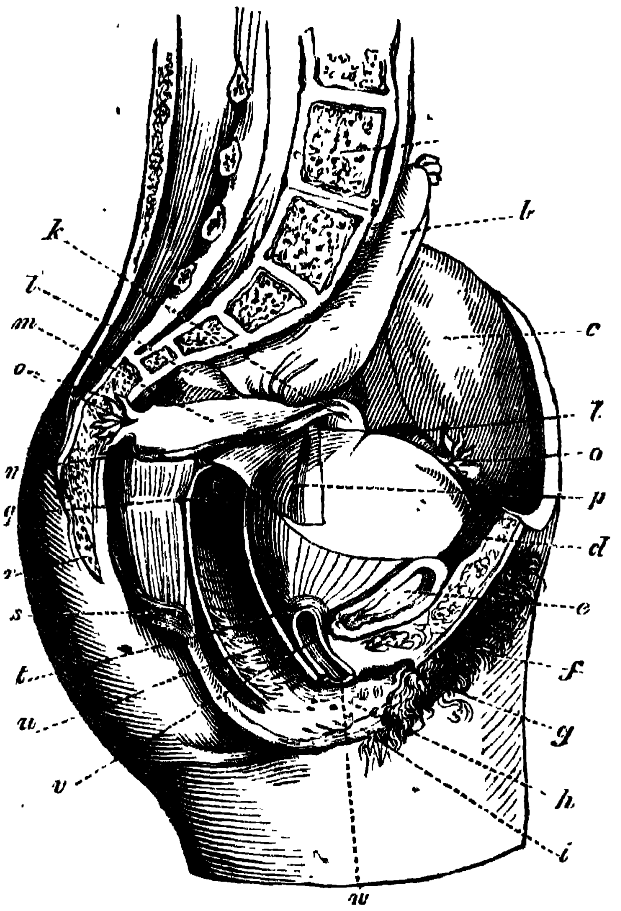


The generative organs; the back surface of the vagina split up.—*a*, the vagina: the rugæ and mucous follicles well displayed. *b* the fundus of the uterus. *c*, its body *d*, its neck. *e*, the os uteri. *f*, *f*, the broad ligaments. *g*, *g*, the ovaries *h*, *h*, the fallopian tubes. *i*, *i*, their fimbriated extremities. *k*, *k*, the round ligaments dissected out. *l*, the mons veneris. *m*, *m*, the labia externa. *n*, *n*, the nymphæ. *o*, the glans clitoridis, covered by its prepuce. *p*, the meatus urinarius, into which the barrel of a quill is inserted.

Analogy between the genital organs in the two sexes.—Aristotle, Galen, and their wordy commentators, have fancied a great analogy between the organs of generation in the two sexes, and tell us that they only differ in position—being external in man, and internal in woman. Sir E. Home seems, in some respect, to follow the same idea in the singular hypothesis he framed. He suggests that the sex is not determined at the first formation of the individual, but that the parts of generation are originally so situated, and of such a structure, that they are capable of being perfected into either male or female organs when the sex is subsequently stamped. It cannot be denied that there is considerable resemblance between the ovaries and testes—the fallopian tubes and vasa deferentia—the penis and clitoris;—but surely the speculation is too finely spun.

DEMONSTRATION OF THE RECENT PELVIS.

I shall now demonstrate to you the recent pelvis, and in the first place require your attention to the preparation before me. Here are the rami of the ischium and pubis sawn through; the bladder, the urethra, the vagina, the uterus, the rectum, the ovaries, the broad and round ligaments. We observe the vagina traversing the centre, and the uterus hanging between the rectum and bladder, supported by the broad ligaments; we see the round ligament running horizontally by the side of the bladder, out of the pelvis to the groin. The intimate connexion between the neck of the bladder and the cervix uteri may be observed in this other preparation. Mr. Brookes's cast also, and a German model on the table, shew the contents of the pelvis very plainly.



Section of the female pelvis.—*a*, the vertebræ. *b*, rectum. *c*, left iliac fossa. *d*, the edge of the rectus femoris springing from *e*, the symphysis pubis. *f*, mons veneris. *g*, clitoris. *h*, left nympha. *i*, left labium externum. *k*, fundus uteri. *l, l*, ovaries. *m*, right broad ligament. *n*, right fallopian tube. *o, o*, fimbriated extremities of the fallopian tubes. *p*, right round ligament: the dotted line crosses the fundus of the bladder. *q*, os uteri. *r*, point of coccyx. *s*, sphincter ani. *t*, sphincter vesicæ. *u*, vagina. *v*, urethra: the dotted line crosses the perineum. *w*, meatus urinarius.

Now the linings of the pelvis are worthy of consideration. On removing the peritoneum, we observe a broad fan-like, or rather funnel-shaped muscle, rising from the bones below the brim, perforated by the urethra and vagina, and inserted into the sphincter ani: it is called the *levätor ani*. On dissecting away these fibres, we observe the *obturator internus*, another muscle taking its origin from a part of the internal surface of the obturator ligament, running round the ischium like a pulley, through the small sacro-sciatic foramen, to be inserted into the root of the trochanter major. We observe the *pyriformis*, which rises from the side of the sacrum and passes out of the pelvis through the large sacro-sciatic foramen to be inserted also at the root of the trochanter major, near to the obturator. These muscles rotate the thigh outwards, they are pressed on during labour, and they are sometimes the seat of the pain which is felt in moving the thighs after parturition. We are not to believe that every pain which a woman feels when she moves her legs is the consequence of inflammation; for it may be produced merely by the pressure these muscles have suffered during the passage of the child. There is another muscle rising from the spinous process of the ischium, and passing backwards to support the coccyx—*the coxygeus.* This is sometimes strained when the child's head presses outwards, and it gives pain occasionally in evacuating the rectum after delivery. We see the *psoas* and *iliacus internus* running outside the brim of the pelvis over the horizontal ramus of the pubis, to be inserted into the trochanter minor.

The arteries and nerves are also worthy of our attention. The external iliac artery runs over the brim of the pelvis by the side of the psoas muscle, so that it is not liable to pressure under labour. The internal iliac runs along the inner edge of the sacro iliac symphysis, and this may probably be compressed in some degree during the birth; not, however, to such an extent as materially to impede the circulation, because it lies deeply imbedded and cushioned in the surrounding structures. The same remark applies also to the internal iliac veins.

The nerves run in four divisions. There are four or five branches of cutaneous nerves, which rise from the last dorsal and two or three first lumbar, traverse the iliac and psoas muscles, and are expended on the integuments of the pelvis and of the fore and outer part of the thigh. These nerves are too high to suffer under labour, but during the last few weeks of pregnancy they are liable to pressure, which produces numbness in the seat of their distribution. The anterior crural nerve, one of great magnitude, takes its origin from the second, third, and fourth lumbar, passes over the pelvic brim outside the femoral artery to be distributed principally to the rectus femoris and other extensors of the leg. It also is out of the way of pressure under labour, but, like the cutaneous branches, may suffer towards the close of utero gestation, to such an extent as to produce cramps on the inner and fore part of the thigh. Thirdly, we have the obturator nerve, which also rises from the second, third, and fourth lumbar, runs round below the brim of the pelvis, and passes out at the upper part of the obturator foramen. This is distributed to the adductor muscles of the thigh, and sometimes produces cramps on the inside of the thigh at the commencement of labour, while the child's head is entering the brim. Fourthly, we have the great sciatic nerve, rising from the fourth and fifth lumbar, and from the first, second, and third sacral nerves. It is the largest nerve in the body. It lies over the sacro-iliac symphysis, passes out by the side of the pyriform muscle, through the large sacro sciatic foramen, to be distributed to the posterior part of the thigh, and to supply the leg and foot. This nerve, situated at the back part of the pelvic cavity and passing entirely through, is particularly exposed to pressure during child-birth, and it is not surprising that much inconvenience should result. Nothing is more common, especially under lingering labour, than for a woman, when the head is fully occupying the pelvis, to complain of violent cramps at the back of the thigh, and especially the calf and plantar sole, adding much to the agony she endures. The fourth sacral nerve is entirely distributed to the parts within the pelvis and about the anus. The fifth is sometimes wanting, and always very small.

Thus, when first the uterus subsides, preparatory to its taking on expulsive action, the cutaneous and crural nerves suffer, producing numbness and pain at the fore part of the thigh; when the head is passing through the brim, the obturator may suffer, producing cramps on the inside of the thigh. When the labour is well advanced, the sciatic nerve may be pressed on, and violent cramps at the back part of the thigh, the calf of the leg, and the sole of the foot, are the consequence; occasionally, indeed, lameness or partial paralysis continues for some time afterwards. The varicose state of the veins, and anasarcous swelling of the lower extremities, so common under pregnancy, also originate from pressure, and mostly disappear, or are much relieved, after the termination of the labour.

[The Doctor concluded by demonstrating Tiedemann's folio plates of the uterine arteries and nerves; in which, he stated, they were better marked than in any other which he knew.]

CASE OF PSOAS ABSCESS.

(*Communicated by Sir James Macgrigor.*)

Cape of Good Hope, July 23, 1833.

Sir,

In the beginning of May of this year, L. C. V. ætatis 40, appeared to all his numerous friends and acquaintances as likely to enjoy a long continuance of good health as any person in the garrison: he was naturally endowed with a strong constitution, and he was of very active and temperate habits. Many years ago he had suffered from remittent fever, while serving on the insalubrious west coast of Africa; and he had then, also, disease of the liver, which he stated to have been accompanied with uncommonly severe spasms of the diaphragm, from which, however, he quite recovered by going to England.

On the 19th of May last he was seized with rigors, pain and tenderness in the right side, just below the ribs, and sense of great weariness over the body. He stated that during the preceding eighteen months he had frequently felt pain in the side, shooting towards the back and loins, which was particularly apt to be excited, or sensibly increased, if at any time he happened to slip his foot, or knock it against any hard substance, and which he considered as warning him that his liver was unsound; but he took no other medicines for it than an occasional dose of calomel, with some other purgative medicine.

For several months he had also, at times, felt a tenderness, and observed a redness in the ball of the right great toe; and he had suffered from heartburn, which made him suspect that he was becoming gouty, as his father was afflicted with that disease; but his general appearance was most healthy.

On the evening of the 20th of May I was called to see him along with his surgeon, and found him labouring under symptoms of acute inflammation of the liver. He felt uneasiness all along the outer margin of the organ; but at the part where the cartilages of the false ribs turn upwards, it was more particularly sensitive and painful to the touch than at any other. After a few days, and while he was apparently going on very favourably towards recovery, he got a strain in sitting down awkwardly upon a bed-pan, which made him scream out from the pain it occasioned in the right hypogastrium, and which continued to give him great uneasiness for many days afterwards. I thought at the time that the pain was more severe than would have been caused in a healthy person by the strain, which from description appeared slight; and I therefore considered it as connected in some way with the disease of the liver. Additional antiphlogistic measures were had recourse to, both local and general, to subdue the pain in the hypogastrium, and the hepatic symptoms; and in six or eight days he was able to sit up, and seemed convalescing so favourably that I began to leave off visiting him regularly every day.

About the 12th of June I called, when he was sitting up at dinner, and was very much struck with his pale and haggard appearance. He was complaining of pain in the back and right thigh, extending as far as the knee, with a degree of weakness and lameness of that extremity, which he was attributing to the probable effect of cold, and considering as rheumatism; but it was too evidently of a different and more serious nature, and on examination along with his other medical attendants, it was found that he did not stand up straight, or that when he attempted to do so, he raised his right knee towards his body; that he had pain in the right hypogastric region, and in the right side of the loins, about the origin of the nerves of the thigh; and that pressure upon these caused the most violent increase of pain in the former parts, although no redness or swelling was perceptible in any of them.

Cupping, fomentations, blisters, and poultices, were repeatedly applied, anteriorly and posteriorly, over the site of the right psoæ muscles, and the origin of the obturator and crural nerves, which evidently appeared to be the seat of the evil, and, after the application of these means, the pain in the thigh and knee subsided, but it could still be readily re-excited by pressure on the loins. He had not been able to bear his thigh to be straightened from the time of the strain, and constantly kept it in a half-bent posture.

He himself considered his complaint to be of a trivial nature, and thought we were making a great deal too much of the pain in his loins, and used to say that he was sure that both that and his thigh would soon get well if he were allowed to take exercise, and was rather annoyed at our examining the parts so often and so minutely, and at our enjoining perfect rest in bed.

It was now observed that vesperal fever was beginning to set in: it was unattended with rigors, but he had a good deal of perspiration towards morning, and we saw that he was becoming hectical.

We continued to examine the loins and iliac region most minutely, yet no sensible enlargement could ever be *distinctly* discovered about the parts, either by the sight or touch, nor could any fluctuation be distinguished even to the last. It was very seldom that he complained of any pain in the loins or hypogastrium, except when these parts were pressed, or that he had occasion to move. Still the disease insidiously gained upon his constitution; he was gradually emaciated; his pulse rose much in frequency towards evening; his nights were restless; his strength declined daily; and we soon felt that we were struggling against a mortal disease. It was evident, from the general symptoms, that suppurative inflammation was going on, although the formation of matter was not announced by rigors; and the local symptoms pointed out that its seat was in or about the right psoæ muscles, and that it was most probably confined there by the strong aponeurotic fascia about them and the other muscles of the loins.

When medical men encounter diseases of a dangerous character in any one, more particularly in one of their friends, their attention is arrested in the most forcible manner; they anxiously watch the progress, and weigh the danger, of the rising symptoms, and exert their utmost skill in the application of remedial means. Such was the case in the present instance: the patient had now four intimate friends attending him, who, aware of the increasing danger, considered that the only chance of effecting a cure was by getting directly to the indicated seat of the disease, in order to allow an exit to confined matter; and therefore decided on making an incision through the tendinous aponeurosis of the muscles of the back, down to the proper muscles of the loins; which was done accordingly.

The incision was carried, first, through the integuments; secondly, through the tendinous expansion of the latissimus dorsi; and, thirdly, along the outer edge of the longissimus dorsi, through the sacro-lumbalis, down to the quadratus lumborum. The latter muscle was exposed to the extent of an inch and a half, but coming to no pus, and being still unable to distinguish any fluctuation, it was thought advisable to carry the incision deeper; *although it will appear afterwards that we should have gone through the quadratus lumborum also, to have attained the end in view.* We hoped that if any formation of matter was more deeply lodged, it would make way outwards in this direction, as the chief impediments to its coming to the surface were now removed; and the wound was dressed with lint to the bottom, to keep it open, and poultices were applied, to bring on a discharge and establish a drain from it.

We had satisfied ourselves before hand that the operation would do no harm, if it did no good; and he thought at first that he was relieved by it; but our hopes were disappointed, and it proved of no real service.

All the symptoms of hectic fever continued gradually to increase; the liver had become again tender and painful, and seemed tense and enlarged just over the site of the gall-bladder, so that we suspected suppuration had formed in the liver. The bowels, which had frequently been irritable and irregular during his illness, were now with difficulty kept under restraint and in due order. The right knee and leg were often quite cold. The foot and leg became œdematous, and he complained of sharp pricking pain in a small circumscribed spot of the knee, as if a pin had been pricking him there.

Three days before his death, he was seized with violent and repeated shiverings, which had an extraordinarily great effect in reducing his strength; and from this time he rapidly sunk. Severe bilious vomiting, and a spasmodic affection resembling hiccup came on, which distressed him so much that he prayed for death in order to obtain relief. He succumbed on the 19th July, at one o'clock, P.M. retaining his intellect perfectly clear to the last.

The body was examined the following day, at noon, when it was found that his death had been occasioned by psoas abscess and disease about the gall-bladder.

The lower part of the omentum, where it dipped into the pelvis, was thickened, and of a red granulated appearance.

The gall-bladder had formed adhesions to the stomach and arch of the colon, and it also adhered firmly to the liver in all its upper surface. These adhesions appeared of long standing, particularly the latter; but acute inflammation had been recently going on in all these parts.

On carefully separating the colon from the gall-bladder, it was found that a corresponding ulceration had commenced in their peritoneal coats, at the part where they were united; which, had he lived a short time longer, would have opened a direct communication between them.

The gall-bladder contained a number of gall-stones, of an irregular roundish form and black colour, and of different sizes, from that of a small grape to that of a millet-seed; and its inner coat was inflamed and eroded in several places by small ulcers, which had probably been occasioned by the irritating presence of the gall-stones.

The great body of the liver was rather of a pale colour, but quite sound, excepting in the immediate vicinity of the gall-bladder, where it was inflamed and indurated to some extent.

In the cæcum, superficial inflammation had been going on, and, besides being bound down by the several reflections of the peritoneum, preternatural adhesions were formed between it and the peritoneum lining the iliac cavity and loins; and on raising it up, to examine the anterior part of the lumbar region, its coat gave way about an inch and a half above the valve, having been previously nearly perforated by ulceration, in a similar way to that before noticed in the arch of the colon, shewing that a communication would soon have been effected between the canal of this intestine and the sac of the abscess behind it.

A purulent cavity occupied the place of the right psoæ muscles throughout their extent, from their origin to their insertion; and small remnants only of their muscular structure were to be observed, which were quite in a putrid and very fœtid state. The quadratus lumborum muscle formed the posterior wall of the abscess, and was but little affected.

The transverse processes of the two lower lumbar vertebræ, and a portion of the body of the lowest one, were denuded and rough, and of a black colour; and from the appearance of these parts altogether, it was conjectured that they had most probably been in a diseased state for many months.

On examining the site of the incision in the loins, it was found to be in the best direction towards the cavity of the abscess, and to have very nearly reached it: the quadratus lumborum muscle only intervened between them; and it is chiefly for the purpose of stating this circumstance, and of recommending the incision to be carried through this muscle in any future similar case, that I have brought the present one to the notice of the profession.

It is generally advised to allow psoas abscesses to point somewhere before any attempt be made to let out the matter; but, by so doing, it must be admitted that irrecoverable local mischief is often allowed to take place, and that the constitution is apt to become undetermined by the irritative fever which generally attends them.

The fatal nature of this disease, after it has made such progress, is so well known, that it evidently becomes our bounden duty to use our utmost endeavours to check the progress of destruction in the parts, as soon as we have reason to suppose that the inflammation will not admit of a cure by resolution, and that suppuration has commenced; and as the operation here recommended is simple, easy, and free from danger,—and certainly seems to hold out hopes of success, if had recourse to before the muscular structure becomes destroyed, and the vertebræ diseased,—I would earnestly advise that it should not be delayed an hour after the existence of the matter has been ascertained. It will be observed, that the opening in the abscess, as here proposed, will be in the most depending part of it, when the patient is placed upon his back, with the hips a little raised; and, in order to accelerate the healing process in the parts, injections might be used, and a degree of pressure made in the anterior part of the psoac region.

Had we succeeded, however, in reaching the cavity of the abscess in the present instance, at the time we made the incision, I do not think we should have had any chance of saving the life of our patient by it, as it appeared, on dissection, that the disease had already advanced too far to admit of its being of much avail; but it certainly would have been a satisfactory circumstance to us at the time to have got at the matter.

How long the disease had existed in L. C. V. is doubtful: some of his friends now state, that for many months previously to his being taken so ill, he used often to complain of pain in the right side of *his loins* after exercise, exactly in the situation of the abscess, which he considered as only indicative of disease of his liver; but I am inclined to think that psoas inflammation, *of the chronic species*, had begun long before the strain he got in the end of May; and that that accident only brought this (often) insidious affection into notice.

In regard to the admission of air into the cavity of deep-seated abscesses,—an event which is so much dreaded by most surgeons, from its being considered as the cause of inflammation in the sac, or parts lining the abscess, and in hectic fever,—I do not know that the truth of this position is satisfactorily established. Its effect does not appear to be of a deleterious tendency in superficial abscesses: the inflammation which succeeds to the opening of them is of an adhesive and curative nature; and we know that fatal hectic fever forms (as it did in this case), independently of the access of air to the cavity of an existing abscess. It seems a good plan, however, to apply an exhausted cupping-glass over the orifice of some of the deep-seated abscesses when opened, for the purpose of emptying them more completely, and preventing the lodgment of irritating matter, and for bringing their sides into contact.

Your very obedient servant,
Jno. Murray, M.D.

ORDER OF THE ERUPTION OF THE FIRST TEETH.

To the Editor of the Medical Gazette.

Sir,

I see that Dr. Ashburner, in his excellent article upon Dentition, published in your journal, has, in accordance with the best written authorities, given the following as the normal order of eruption of the first teeth—

Two central lower incisors.
Two central upper incisors.
Two lateral *lower* incisors.
Two lateral upper incisors.
Four first molar teeth.
Two lower canine teeth.
Two upper canine teeth.
Four last molar teeth.

Now, sir, my attention was called to this subject a few years back, by a copy of the following table, given to a patient by the late Sir Richard Croft:—

Molars.		Canine.	Incisors.				Canine.	Molars.		
9	5	7	3	2	2	3	7	5	9	Upper Jaw.
10	6	8	4	1	1	4	8	6	10	Under Jaw.

This, it will be observed, differs from the usually-described normal order, inasmuch as that after the appearance of the central incisors, the teeth of the upper jaw always precede the corresponding teeth of the lower jaw. As this is a matter which may easily be proved by observation of the fact (to which, if it be fact, all authority must yield), I have only to add, that I have carefully watched the order of succession in at least fifty children, and from the very few exceptions I have met with, believe Dr. Croft's to be the real nosmal order of eruption.

Your obedient servant,
A General Practitioner.

Nov. 8, 1833.

THE HYDROSTATIC TEST.

To the Editor of the Medical Gazette.

Sir,

The following case, which proves that lungs which have never respired may yet float from putrefaction, and that such an occurrence forms no valid objection to the hydrostatic test, may perhaps be deemed by you of sufficient interest to entitle it to a place in your valuable journal.—I am, sir,

Your obedient servant,
Egerton A. Jennings, F.L.S.
Surgeon to the Leamington C. B. Instit.

Leamington Spa, Nov. 4, 1833.

Floating of the Lungs of a still-born Child, from Putrefaction.

On the 26th of October last, a person walking on the banks of the Leam, observed a bag floating in the river: on taking it out of the water and opening it, a new-born female child was found therein. The body was in a putrid state; the abdomen of a dark-green colour, and distended with gas; the upper and back part of the head was dark coloured and emphysematous. From the circumstances under which the child was found, strong suspicions were entertained of its having been murdered. These suspicions were strengthened by the navel-string having evidently been torn asunder and never tied; by the face being flattened, and by the existence of palpable marks of a cord having been tied tightly across the mouth, and also beneath the chin. To confirm or confute these suspicions became the duty of the medical inquirer; for in the event of his inability to solve the problem, public conjecture must have been left to explain the mystery as it best might.

I was desired, by Mr. Williams, the parish surgeon, to assist him in the investigation of the case, and the following were the observations we made upon the body.

1. The body was in a putrid state; the parts most affected with putrefaction were the head and abdomen—the latter was distended, the former was dark coloured, and beneath the scalp a considerable quantity of air could be felt. The cuticle in some parts was detached, and in all separable by the slightest friction.

2. The body weighed 6 lb. 1 oz. It measured 20 inches in length. The centre of the body was scarcely an inch above the umbilicus. The head was well covered with hair.

3. The cord, eight inches of which was left attached to the body, terminated irregularly, the umbilical vessels not being at their termination of the same length. No ligature had been placed upon it.

4. There was a deep groove, apparently produced by the pressure of a cord, extending across the mouth and right ear to the back of the head; a similar groove extended in front of the right ear, across the angle of the jaw and beneath the chin. The grooves could not be traced all round the head, so as to prove their continuity. There was no extravasation of blood in the cellular tissue beneath these grooves. The face was flattened and the nose compressed.

5. In the abdomen nothing remarkable was observed, except traces of putrefaction. The umbilical vein was distended with air. The liver was putrid, and crepitated when pressed between the fingers, or cut. It floated in water, even after several cuts had been made into it, but by slight pressure after these incisions had been made, the air was expelled and it sunk to the bottom of the vessel.

6. The cavity of the chest was small, and the diaphragm much arched. The lungs were of a dark chocolate colour; they occupied only the upper and back part of the chest, and did not cover the sides of the pericardium; they crepitated when pressed. Air was observed beneath the pleura, but instead of the air-cells being minute they were large; several of them not smaller than a pea. The air from several adjacent cells could be driven before the finger to one spot, so as to form one large blister. The lungs floated when placed in water with the head and large vessels attached. When separated, each lung floated; when cut into slices, each slice floated. The pieces of lung were placed in a strong cloth, and twisted with considerable force; after this pressure, which was not sufficient to destroy the texture of the organ, the lungs sunk.

7. The ductus arteriosus was considerably larger than either of the pulmonary arteries, of the same size throughout, and terminated by a large opening in the aorta. The foramen ovale was open.

From the observations (2) it was evident that the child was mature, and might have been born alive. That no regular midwife assisted at the birth, may be assumed from (3). That the child was not born alive, though the lungs floated in water, may be considered as proved by the small size and chocolate colour of the lungs (6); by the cells containing the air differing in size and character from the air-cells of the lungs (6); by the lungs ceasing to float after exposure to pressure (6); and by the proportion between the pulmonary arteries and arterial duct being that of fœtal life (7) The extremely putrid state of the body (1 and 5) was the evident source from whence the air occasioning the buoyancy of the lungs was derived.

There was yet another point to be explained: what had occasioned the appearance of violence about the face? That evidently was produced by some cause subsequently to the death of the child. There being no extravasation of blood beneath the grooves (4), proved that those injuries could not have been inflicted during life. The cord with which the bag was secured was most likely to have produced them, it probably having passed round the child's head.

This case, though shewing that floating of the lungs cannot alone be depended on as proving respiration, yet shews, that with due caution and observation, the floating of the lungs from putrefaction may readily be distinguished from the floating of the same when occasioned by respiration.

TREATMENT OF COMPOUND FRACTURE OF THE LEG.

To the Editor of the Medical Gazette.

SIR,

THE following case of compound fracture of the leg may not be devoid of interest, as serving to illustrate the beneficial effects likely to result from a method of treating accidents of that description, which may perhaps fairly lay claim to some degree of novelty.

James Porter, æt. 18, was admitted into the Newcastle Infirmary on the 9th of May, 1833, with a severe compound fracture of the right leg, in consequence of a wheel having passed over it. The leg was crushed nearly flat, and exhibited a very extensive lacerated wound, reaching nearly from the knee to the inner ankle. The tibia was exposed for several inches, and to a considerable extent was denuded of periosteum; a triangular piece was so loose as to be removed from the limb without effort. It became a serious question to determine whether, with so severe and extensive an injury, an attempt could with propriety be made to save the limb; but having just at the time completed an apparatus which I believed to offer peculiar advantages for the treatment of such an accident, I resolved to give it a trial. Those advantages consist in the leg being slung in an easy horizontal position, and the capability of dressing and cleaning it thoroughly and frequently, without any movement or disturbance whatever.

I accordingly placed the injured leg on the apparatus referred to, which admits of the knee and foot being rendered fixed points,* while, by the action of a screw, the necessary degree of extension to reduce the fracture is exerted and maintained. The widely-separated lips of the wound were then drawn together with adhesive straps, and other necessary dressings, and a many-tailed bandage was applied.

The lad had received some bruises on the abdomen, of which he complained much; a few leeches were applied, from which he derived relief; and a cooling plan of treatment was pursued. After the dressing he made scarcely any complaint of the leg. In three days the dressings were removed and replaced without disturbance, which was afterwards done regularly every second day. Very little swelling took place; but from so extensive and lacerated a wound the discharge was necessarily very great; nevertheless, the greatest cleanliness was easily observed, in consequence of the ease with which it was dressed. In a few days all constitutional disturbance subsided; the wound began to contract, and was only prevented from finally healing by a large portion of bone, which had died in consequence of being denuded of periosteum.

The process of exfoliation was necessarily slow, and required four months for its completion. At length a mass of bone was thrown off, measuring in length nearly two inches, and with what was originally removed, four inches, and in one part comprising almost the entire circumference of the tibia, but gradually shelving off to the surface towards the lower end. The cavity which remained gradually filled up, and at the end of six weeks the wound has entirely healed. The leg is without deformity, though the bone is somewhat broader in its renovated diameter, and the length is exactly preserved. The most remarkable feature in its appearance is the very extensive cicatrix left by the wound.

Without doubt I must look upon the termination of the case as highly satisfactory, when considered as a test of the new description of apparatus employed. Without the advantage of perfect quietude, secured by the sling, and the horizontal attitude of the leg, and the unusual facilities afforded for cleaning and dressing, I scarcely think it possible that so serious an injury could have been conducted to a safe conclusion. A detailed description of the apparatus employed would take up too large a space in your valuable journal; but as it is my anxious desire that it should be inspected and tried in practice by my professional brethren, I may be permitted to mention that it may be examined at Messrs.

Weiss's, in the Strand; and that a short explanatory description of it, illustrated with plates, has been lately published by Mr. Highley, in Fleet-street.

On inspection of the apparatus, it will be found, in addition to the peculiar facilities for dressing compound fractures of the leg, and for suspending it in an easy sling, to possess an arrangement for fractured femur, which I have used successfully, and which may not be unworthy of attention, more especially in its applicability to fractures in the upper third, or in the neck of the bone.—I remain, sir,

Your obedient servant,
T. M. Greenhow.

Newcastle, Nov. 2, 1833.

FINANCIAL MANAGMENT OF SELF-SUPPORTING DISPENSARIES.

To the Editor of the Medical Gazette.

Sir,

I have been applied to frequently by gentlemen and secretaries of self-supporting, charitable, and parochial Dispensaries, for information on the best manner of keeping their accounts, as well as of *combining* and *condensing* their annual statements.

Perhaps you will be kind enough to allow the following formula for the latter purpose to appear in an early number, as it will afford surgeons an opportunity of supplying secretaries with very useful information, and will assist the former in any preliminary calculations they may wish to make for their own districts.

Every person who is actuated by a fatherly regard for the health and happiness of the labouring people, by enabling them to redeem themselves progressively, peaceably, and unostentatiously, from parish bondage, and who is patriotically desirous of assisting government in strengthening the foundation of society, and constitutionally promoting the welfare of all classes; and every surgeon who is the friend of order and system (the want of which, by the by, amongst themselves it is that paralyses their power, weakens their influence, and lessens their hard-earned profits), cannot fail to observe, on attentively reading this outline of a yearly account of a Self-supporting Dispensary, that the foregoing advantages *may be obtained*, and that such a Dispensary may and will, in the progress of time, be the nucleus of most important statistical as well as medical tables. These tables have hitherto been made from inadequate sources of information: some have been too conjectural, or have been made at such an unreasonable sacrifice of time and money that very few have been able to undertake their construction. Some amongst us, even in the quiet retreat of a country town or manufacturing village, where such a Dispensary is established, may be enabled to verify and perfect the admirable and useful line of observation commenced by Mr. Thackrah, on the effect of manufactures, trades, &c. on life and health: others, again, on bastardy, the time of marriage, wages, agricultural and manufacturing employments, as they affect population; and laudably pass their leisure hours in instituting comparisons with other districts of the country and denser populations, on the effect that education, climate, soil, modes of living, pauperism, and crime, have on the moral and physical condition of each separate portion of the community.

Medical men have it in their power, in co-operation with the abused and vilified clergy, and other practically wise and good men with which the country abounds, to "win the affections" of the comparatively industrious among the common people, and neutralize the tendency to sedition and anarchy which is too general among the idle and vicious—idle and vicious because improvident;—improvident, because "beggary is made a better trade than the spade or the workshop."

These considerations, however important, are secondary to the formation of an institution that shall embrace, *at their own homes*, or at the Dispensary, as the case may be, *all the sick poor* of a district: and I further entertain the hope, that in a few years every county in the kingdom, commensurate with its population, will be supplied with District or Self-supporting Dispensaries (for the name is indifferent), on the combined principle of the *industrious poor* paying for themselves—the *patronized* *and genteel poor* being paid for by honorary subscribers, and the *parish poor* by overseers of parishes. As the former are encouraged, the two latter classes will decrease. There will be a District Dispensary required for every locality having 8000 inhabitants in a circle of twenty-one miles; and every large town with 60,000 inhabitants should have two Dispensaries, and so on in proportion. Many counties will require twenty Dispensaries, and some even thirty or forty.

Then EVERY JUNIOR MEMBER of the Hall, or of the College, will find a clear stage—he may *fairly commence* his career, and exercise his dear-bought skill, without the sale of his patrimony, or the resorting to the mean and selfish arts which men have frequently been compelled to adopt on beginning practice. If ambitious of distinguishing himself as an operating surgeon, and really deserving the highest honours in the profession, in the progress of light and liberality there possibly may be a rule made at our county hospitals that the surgeons to those institutions shall be elected by the surgeons of the Dispensaries in each county, and who must be better judges than the Hall, the College, or the public, of the qualifications of any man to fill that high station. It is by these means only, which will make the profession more useful, and therefore more popular, that the *crisis* alluded to by the President at the Sheffield Meeting can be made a salutary one, and by which the character and respectability of our profession can be raised; and not by abusing gentlemen and governors for patronizing (as they are atrociously and falsely called in the Lancet) "*human slaughter-houses*," and whose statutes and regulations, after all, nine times out of ten, have been recommended to them by the prospectuses of medical men.

I have the honour to remain,
Your humble servant, &c.
H. L. SMITH.

Southam, Oct. 30, 1833.

The General Yearly Statement of the INCOME *and* EXPENDITURE *of the Self-supporting, Charitable, and Parochial Dispensary, for the District of* ——, *in* ——, *for* 1833.

INCOME.		£.	EXPENDITURE.	£
The overseers of the parish of (say Agricola), on behalf of their paupers, the total population being (at 2*l.* per 100)	2000	40	To drugs, leeches, &c.	80
Ossifex, ditto	1400	28	Paid the medical officers, for attendance at the Dispensary and journies, according to weekly account, as follows:—	
Machinator, ditto	1600	32	M. Salus £48 10 0	429
Familicus, ditto	200	4	R. Populi 150 0 0	
Obesus, ditto	2000	40	C. Suprema . . . 170 0 0	
Carnivorus, ditto	500	10	S. Lex 60 10 0	
Herbivorus, ditto.	500	10		
Despoticus, ditto	100	2		509
Democraticus, ditto. . . .	900	18		
Servus, ditto	1600	32		
Frigidus, ditto	3000	60	Examined and passed by	
The subscriptions of free members* for the current year, from the parishes above-mentioned . . .	—	300	Visitors } "Virtus in and Auditors } Actione consistit."	
Total Population . . .	12,900	576		

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* The proportion of free members in each parish, as well as the number of honorary subscribers, will, in some future statement, become matter for further observations: they are better fitted for a political than a medical journal.

Abstract of the Cash Account *of the Honorary Subscribers and Donors.*

	£.		£.
To annual subscriptions and donations	100	To one year's rent of Dispensary	10
To proceeds of sermons at the different parishes	40	To stationery, printing, &c.	27
Profits on a ball and Bazaar	90	To Secretary's and Dispenser's salaries	30
		To Collector's and Matron's salaries	40
		To wine, brandy, broth, linen	60
		To letters, sundries, &c.	5
		Coals and candles	10
£	230	£	175

MR. GUTHRIE'S REPLY TO MR. KEY'S STRICTURES ON HIS PAPER,

"ON SOME POINTS CONNECTED WITH THE ANATOMY AND SURGERY OF INGUINAL AND FEMORAL HERNIÆ."

To the Editor of the Medical Gazette.

Sir,

I am so hardened by the attacks of various kinds which some gentlemen from time to time have been pleased to make, that I desire the journals in which such things are contained may not be brought to me, and I rarely, therefore, read these articles unless by accident; they are thus deprived of their sting, as far as I am concerned, as I cannot possibly be displeased at that which I do not know. If I submit to the various imputations thus cast upon me, it is only because I will not give myself the trouble and uneasiness of thinking about, or of answering them.

The "Strictures" in your journal of the 9th instant, on my paper on Hernia, would have passed unnoticed, if Mr. Key had not attached his name to them. His general respectability, and more particularly his connexion with Sir A. Cooper, induces me to break through a resolution I have now some years formed, of never entering into a medical controversy, and particularly an angry one; and to request a place in your journal for my reply. The *preux* chevaliers of the bygone days were often in the habit before they entered into mortal combat, to salute each other, in order to shew that although their strife was deadly, it was dependent upon a point of honour, and not upon personal feeling and hatred.

Mr. Key, for the simple circumstance of my having differed in opinion with Sir Astley Cooper, in the most unassuming manner possible, as I shall shew in the sequel, has thought it right to treat me generally with great incivility; to call me an indolent superficial person, desirous of gilding his own reputation at the expense of his contemporaries; ignorant withal; and by implication not to be misunderstood; little better than a literary thief. Well indeed may the better classes of society say, we cannot put our sons into the profession of surgery; it is not one a gentleman can enter. When you have a difference, however trifling, your first letters are written in all those terms of violent abuse with which those of all other persons end. When will you surgeons become civilized beings, and learn that even a strong argument gains no support from personalities or abusive language? Let me hope that Mr. Key will pardon the liberty I take, in offering him my forgiveness for his incivility, and that he will join me in showing to the world, that the President of the Royal College of Surgeons, and a future aspirant for that honour, can break a lance on a difficult point in anatomy or surgery, with all the courtesy of gentlemen of the olden time.

Two hundred and fifty copies of my paper were printed, and of these, thirty-four only have been placed in the hands of the bookseller for sale; the rest I have given away, or reserved for a future purpose. In the introduction, dated 22d August, 1833, I have stated it had been written nearly two years, and that the press had been standing many months, in the hope that it might form part of the first volume of the Transactions of the Royal College of Surgeons. It must therefore be considered as the lecture delivered in February 1831. My wish was, that it and all other papers should be read publicly in the theatre, before the Council and members, assembled in the same manner as for the delivery of the lectures, and that the Council should afterwards determine upon their merits. Disappointed in this hope, for reasons I cannot now enter into, I desired that the paper might be printed; but before I did so I sent it to Sir Astley Cooper, requesting he would have the goodness to read it, and to mark any passages he thought erroneous as regarded himself, or did not approve of, in order that they might be altered to his satisfaction. He kept the proof sheet three weeks, and returned it with an objection, written in his own hand on the upper part of the first page, to one passage only, viz. that at page 20, in which I say that bleeding in strangulated hernia "has been recommended by Sharp, Pott, B. Bell, Sabatier, Richter, Collésen, Scarpa, and Sir Astley Cooper, names which can never be surpassed in respectability; whilst Wilmer, Alanson, and others, have published against the practice." In the proof, Sir A. Cooper's name did not stand with the first party, but with Wilmer and Alanson, and to this he objected. I immediately altered it; but he wished that we should read over that part of his folio work together, in which he considered his opinion to be given the other way, which we did; and I told him that I had copied this passage precisely as it stood, from Mr. S. Cooper's Dictionary, for reasons I shall presently assign. I asked him if he had any other objection; he said he had not, and I of course had no farther alterations to make. Living on terms of friendship with Sir Astley Cooper, sitting at the same table fifty nights a year with the utmost harmony, and going home with him, Mr. Thomas, and Mr. Keate, in his carriage the same evenings, I felt it was due to him to submit to his perusal, previously to its being published, a paper on a subject which had been, and was still, peculiar to him; I felt it was only a proper compliment to ask his corrections and objections. I leave it to the decision of the profession, whether it was possible to pay a greater mark of friendly, nay, of respectful attention, to any man.

If I did shew myself ignorant of the then existing state of surgery on the subject in question, in my lectures, as Mr. Key states, it was not for want of good teaching, inasmuch as Sir Astley Cooper had done me the favour to instruct me, in the course of his examinations of some of the candidates for the diploma, and by sketching the parts on paper, according to his views of them, and lastly by dissecting them with me. It was either through wilfulness, or that obstinacy which induces a man to adhere to his own opinion when he thinks it right, in preference to following, like a parasite, the opinion of another which he believes to be less correct, that I chose to deviate from it. When I found I could not quite accord with the opinions I heard Sir Astley Cooper deliver, nor with the pen-and-ink sketches with which he supported them, I asked him to come and look at the parts I had prepared; and I had five male pelves on the table for demonstration, at a period, in February 1831, when even one was scarcely obtainable in London without great difficulty and expense. He appointed the hour, two o'clock, and, in the presence of Mr. Clift, senior and junior, Mr. Owen, and myself, he worked until near four upon the opposite side of the same subject, engraved plate 1. The dissection thus made was drawn by Mr. Clift, senior, and is engraved in plate 2, being the first figure. I did not then admit that it supported the statements made by Sir Astley Cooper in his work on the Testis, in which this subject is introduced, and I would not say it in the theatre. I do not admit it now; and if gentlemen choose to accuse me of ignorance because I will not teach what they believe, but which I do not, they are at liberty to do it, but I do not think with justice; they ought rather to accuse me of an obstinate adherence to what they think erroneous opinions. Lest, however, I should appear to have taken an undue advantage of an act of kindness, I thought it right to have Sir A. Cooper's own lithograph figure, contained in his own work on the Testis, copied, and it is given as figure 3, plate second, and with the letter-press explanation. But I do more—I give the *whole passage in the body of Sir A. Cooper's book, without the omission of a single word:* it occupies nearly all pages eight and nine; so that if I had intended to misrepresent, or rob Sir

Astley of his just claims, I have done it in so very extraordinary a manner, that there is not a dog that runs the streets that would not be able to perceive it, provided he could read.

I must beg the reader to pause, and ask himself, what man can do more to another, than to give every word he has said on the subject in question? I ask again, can any man wish for more in an inquiry, than to have *all* he has written distinctly laid before the judges? Is it possible that a man who acts in this way can be accused of not having referred to the original work of the author? I should have thought not, but Mr. Key, through inadvertence, has done it. I feel assured he will lose no time in retracting, in the strongest manner, the insulting expressions he has made use of towards me, particularly in the second column of the first page of his critique.

He has, in the first column, the following passage:—"Mr. Guthrie has announced that he takes the descriptions of the anatomy of the parts from Mr. Cooper's Surgical Dictionary, and proceeds to criticise them as if he were in full possession of the several authors' sentiments. He contents himself with the brief description given in the same work, as evidence of the exact state of science up to the period at which he commences his labours of discovery," &c. To this passage I have one serious objection; it is simply—*that I have never made such announcement, that I have never said the thing, nor done it.* I have said, "That it may not be considered I am combating a shadow, I shall first shew what are the opinions of some of the ablest anatomists who have written on these points, and then to develop my own." "Mr S. Cooper, whose Surgical Dictionary may be justly consulted as a summary of the opinions of the principal surgeons of Europe, has given, in the last edition of his work of 1830, page 653, the following account, compiled with especial reference to the works of Sir A. Cooper, Messrs. Lawrence, Scarpa, Wesselback, Cloquet, and Langenbeck." I then proceed to give this summary, being Mr. Cooper's own opinion, containing Mr. Lawrence's, but which I did not adopt until I had twice read the latter gentleman's statement in his own work; and this summary is followed (the reader will be surprised to hear), by translations made by myself from the works of Cloquet and Blandin, with allusion to similar passages in particular pages of Velpeau, occupying three pages; which translations are not to be found in any other book in existence but my own. And this is followed by the whole of Sir Astley Cooper's original statement, to which I have alluded, making in all five pages of anatomical description, one-eighth of the whole of my paper, not one line of which is to be found in Mr. Cooper's Dictionary; and yet Mr. Key says that I have taken these descriptions from it. I will not charge Mr. Key with any thing more than a too vivid imagination, which has made him neglect the facts as they stand, in the ardour of his desire to punish me.

Having given the words of Cloquet, Blandin, and Sir A. Cooper, from their own works, I proceed to express my surprise at the great difference which exists between their different versions of the same thing; and then endeavour to convey my own views on the subject. Mr. Key seems to make small account of Jules Cloquet, but I will venture to assure the readers of this paper that his work on the Anatomy of Hernia is by far the most laborious work we have on the subject. He gives an account of the appearances of several hundred dissections, for the purpose of elucidating this subject; he describes the appearances observable in different varieties of structure; and it is to him we owe the first correct description in print of the cremaster muscle. In this part of my paper I have quoted his words, and with reference to the page in his book in which they are to be found. I have done the same by Breschet; and yet it is said I have copied this from Mr. Cooper, who does not say one word on the subject. The most extraordinary part of the whole of this misrepresentation is, that he says I am shy (page 196 of your journal) of consulting Sir A. Cooper's works, and rather trust to "reports" of his opinions; he therefore, for my information, and not of your readers, as he distinctly says, does me the favour of transcribing *part* of a description, the *whole* of which I have given at full length in the very words of Sir Astley, and not only the words, but the plate to boot. Surely Mr. Key could not have been in his right mind when he made this statement, or was careless of the result, provided he had the opportunity of offering me an insult, which he must have known would be repelled, in a short week or two, to his own inevitable discomfiture.

I have not criticized Sir Astley Cooper's work in my paper; my warm regard for him prevented my even wishing to do so, and this letter proves it. I stated his opinions verbatim, and without reserve, and then placed my own in succession. The reader may collect from them that there is a difference of opinion, but it is not so stated; there is just hint sufficient to an anatomist to set him to work.

Mr. Key is exceedingly displeased with me because I have said that in 1831 it was the prevailing opinion of modern surgeons, that the parts through which an inguinal hernia passes or proceeds have little or nothing to do with the causes of strangulation. I am sorry he should be displeased, but I cannot help it: I am of the same opinion still, and may be a very obstinate person; but if my readers will consult the recollections they entertained on this subject in February 1831, when the lecture was delivered, (and my paper alludes to nothing written since that period), I suspect many —nay, most of them, will agree that they did hold such opinions.

Mr. Key (page 196, at the lower part of the second column) says, "Not, however, to disparage the labours of Mr. Guthrie, but to give him full credit for his discovery, let us see what addition he has made to our knowledge of the anatomy of this canal, and in what he differs from Sir Astley Cooper. After a careful perusal, I believe I discover that in his dissection he makes the muscular fibres of the transversalis pass in a more circular form under the spermatic cord, and around the lower margin of the upper abdominâl opening;" and further on he says, "Perhaps Mr. Guthrie may have found the fibres more completely circular in his dissection for the College lecture than Sir Astley Cooper may have described them." I am sorry to be obliged again to differ with Mr. Key on the point of what I have really said in print; but I believe I have written exactly the reverse—that the fibres alluded to were not *circular* but *straight*.

In page 197, Mr. Key proceeds to misquote what I have written, page 19 of my paper, and then calmly says, "it is not quite clear,"—a fact which I admit, but it is because the sentence is his —not mine. He has inadvertently changed the word CIRCULAR into MUSCULAR, and made nonsense of it.

I take it for granted that Sir Astley Cooper's works on the subject are in every library, and as my paper cannot by any possibility be there also, I shall copy my statement:—

"Sir Astley Cooper first gave to the fascia the name of *fascia transversalis*, and drew attention to it in so marked a manner as to attract that of other anatomists. Jules Cloquet made it an object of particular study, and Blandin and Velpeau consider it to have been more accurately investigated by him, on which account I have transcribed his account of it, page 5. Cloquet says, that he had not seen Sir Astley Cooper's work, but had formed his ideas of it from that of Mr. Lawrence; and it appears to me, that he, Blandin, and Velpeau, have fallen into a misapprehension on the subject, common to many of our own countrymen, who have described that to be fascia transversalis alone, which is in reality the tendon or aponeurosis of the transversalis muscle implanted upon it; for without such misapprehension it is impossible to say that the spermatic cord always lies on the fascia transversalis in any part of its course after it has passed the superior opening of the inguinal canal, and has emerged from under the fleshy fibres of the transversalis muscle: nevertheless, this is said to be the case. The statement made by Cloquet, Blandin, and Velpeau, that the fascia transversalis arises from the inner edge of Poupart's ligament by a reflection upwards on that part, whilst Sir Astley Cooper describes it as passing beneath, to form the sheath of the femoral vessels, is another cause, I suspect, of the misunderstanding which has taken place. Cloquet, who wrote from very laborious observation, says, in a note at page 26 of his work, and in addition to the observations I have quoted, page 6, 'that very often the fascia transversalis is evidently formed of two aponeurotic layers, which are united on a level with the top of the crural arch. Of these the anterior comes from the arch itself (Poupart's ligament), the posterior being only a continuation of the fascia iliaca, which quits the iliac muscle to ascend upon the anterior wall of the abdomen. These two layers thus reunited proceed back to back between the transversalis muscle and the peritoneum. It is easy to separate them on the outside of the superior opening of the inguinal canal, but on the inside and around it they are intimately united. When this formation is met with, the posterior layer passes usually behind the rectus muscle in its way to the linea alba, whilst the anterior one is continuous with the edge of the tendon of the rectus. The epigastric artery is sometimes posterior, sometimes anterior, and sometimes even between these two layers.' This description, which Cloquet gives as of an accidental occurrence, is, in my opinion, that which most frequently takes place; and if the fascia transversalis be said to be composed of two layers, the anterior being fibrous, the posterior cellular, much confusion will be avoided.

"The division which is made of the fascia transversalis into two parts, where it lines the wall of the abdomen, one being called external, the other internal, or anterior and posterior by Sir Astley Cooper, (but which are not the anterior and posterior layers of Cloquet,) the spermatic cord passing between them through an opening which is named the superior opening of the inguinal canal, is also a fertile source of inconvenience to the student, who will seek in vain for any such opening. If he is taught to consider the fascia transversalis as a sheet of condensed cellular membrane divisible in some parts into two layers, passing upwards from Poupart's ligament to fortify the peritoneum, he will readily understand it; and if he is shewn that at a certain spot it becomes much thinner, and allows the spermatic cord to pass through, he cannot fall into any misapprehension. This part is not, however, an opening; it is merely the thin portion of the fascia, which, as the testis escaped from the abdomen, was carried forward by that gland, and is now seen attaching itself to the spermatic cord. If this cord be drawn down, and an incision be made around it, close to where it is attached to the peritoneum, a sort of ring is formed, and if the finger be introduced, the thin part can be stretched or torn, until the firm internal edge of the denser anterior layer of fascia transversalis can be distinctly seen, having the epigastric artery a little to its inner side. The outer side of the ring is not so well marked, and the hole thus made by the finger is usually so large, and its outer edge so weak, as to occasion little fear of any great constriction being made by it on any portion of the contents of the abdomen which may be protruded through it. It is, therefore, not the part which constitutes the stricture at what is called the inner ring.

"When the peritoneum is carefully removed from the inside of the wall of the abdomen, by tearing through the cellular membrane which attaches the one to the other, the fibrous or anterior layer of fascia transversalis is not the part next brought into view, but a distinct layer of cellular structure resembling fascia, although oftentimes loaded with fat, which can be readily dissected off in a complete sheet, carrying with it the epigastric vessels which adhere rather to it than to the fibrous texture in front. This cellular layer I take to be the same thing as the posterior layer of Cloquet; but whether it is or not, it passes behind the rectus to meet its fellow from the opposite side, covers the iliac vessels below, and passes under Poupart's ligament, forming their cellular and adipose sheath and the septum which passes between them. When this cellular layer is turned down, (as in Plate III. fig. 1,) the fibrous fascia transversalis is brought into view. If an attempt is made to turn the latter down from the transversalis muscle, two inches above Poupart's ligament, it is often found to adhere very firmly to it and to its aponeurosis. When muscular at this part, many of the fibres seem to be implanted on it, although both muscle and aponeurosis are sometimes wanting, in which case only can the spermatic cord lie upon the fascia transversalis. When the tendons of the internal oblique and transversalis muscles are complete and well marked, and they and the fascia transversalis are traced inwards to the rectus muscle, the two tendons are seen to pass in front of it very distinctly; the fibrous layer of the fascia transversalis, on the contrary, divides, the anterior and thickest part is attached to the anterior edge of the rectus; the other, which is very thin, passes behind the rectus to meet its fellow from the opposite side; but at the lower part, close to the pubes, a portion of the fascia transversalis becomes very strong, and resembles, more than any thing else, a round white tendon going to be inserted into the pubes near its symphysis, and behind the rectus. The interspace formed by the recedence of the two insertions is very distinct, the rectus filling it up[*]. The fascia transversalis passing externally from this sort of tendinous insertion, is attached to the inside of Gimbernat's ligament, of which it forms the internal layer, and is then continuous with the pelvic fascia. Passing from the upper edge of Gimbernat's ligament, or the third insertion of the external oblique muscle, to the inner edge of Poupart's ligament, or the second insertion of the same muscle, the fascia transversalis seems to adhere so strongly as to appear to be a reflection upwards from it, which is the view taken of it by the French anatomists; but if care be taken in making the dissection, it can with some difficulty be separated from it, and be shown to pass under the ligament to form the septum crurale, and the anterior part of the sheath of the femoral vessels. Exterior to the femoral artery, the fascia transversalis is firmly attached to Poupart's ligament, and is continuous with the iliac fascia.

"The transversalis muscle lies immediately upon the fascia transversalis. Its inferior edge is said to pass over the spermatic cord at the inner or superior opening of the ring, in order to form, with the internal oblique, the sheath of the rectus. This I believe to be in many instances an incorrect description. In the demonstration of these parts in the theatre of the Royal College of Surgeons, I had the opportunity of showing (see Plate I.) the transversalis muscle advancing fleshy or muscular until it reached the spermatic cord; a portion of it then took the usual course above and over it, whilst another portion passed below it, the terminating muscular fibres of which were inserted along the inner edge of Poupart's ligament up to the pubes. The muscularity of this insertion was admitted by the various teachers of anatomy and other competent judges who were present. The lower part of the abdomen was thus shown to be defended by a layer of muscular and tendinous fibres, lying upon the fibrous layer of the fascia transversalis; and the spermatic cord passed, not, as it is usually stated, under the inferior edge of the transversalis muscle, but through a split in it, originally formed for the purpose of giving passage to the testis. This split or opening was rounded on its under part, where the spermatic cord rested upon it, and formed a small opening essentially muscular in every direction, and much less in size than that which is described as the opening of the fascia transversalis, which adheres to the internal surface of the muscle[*].

"It is this part, therefore, and not the fascia transversalis alone, which constitutes the inner or superior opening of the inguinal canal for all surgical purposes. The transversalis muscle does not, however, in the generality of instances, send its inferior portion forwards, and beneath the spermatic cord, in so marked a manner. This part of the muscle more frequently becomes tendinous and aponeurotic; but its fibres, although tendinous, are distinctly marked, running transversely in continuity with the fleshy fibres of the muscle, and are inseparably united to Poupart's ligament[†]. In some instances the muscular fibres of the transversalis do not take so oblique a direction from without inwards and downwards, but crossing more horizontally, send down a narrow tendon, on forming with the internal oblique the sheath of the rectus, which descends almost perpendicularly for some distance, to be inserted into the tuberosity or spine of the os pubis[‡]. The inferior or aponeurotic part of the transversalis may be equally present, forming the inferior edge of the inner opening of the inguinal canal; but this formation cannot take place if the spermatic cord passes immediately over Poupart's ligament, in which case this ligament forms the under part of the inner opening of the inguinal canal, the lower edge of the transversalis muscle the upper, and the fascia transversalis the sides. The epigastric artery runs within a few lines of distance from the internal edge of this part or opening; and between this vessel, on the outside, the edge of the rectus on the other, and Poupart's ligament below, as the base, the triangular space of Hesselbach is formed, through which that sort of hernia takes place, which is called *internal* by him, but *direct* by Sir Astley Cooper, to distinguish it from the more common one, which, passing through the inner or superior opening of the ring, is called *external* by Hesselbach, and *oblique inguinal* hernia by Sir Astley Cooper.

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[*] It is in the face of this that Mr. Key, p. 199, first column, charges me with being ignorant of the one insertion, whilst I have shewn two.

[*] The 1st variety.
[†] 2d variety.
[‡] 3d variety.

"When the transversalis muscle is inserted broadly into Poupart's ligament by its superior fibres only, the anterior ones pass on to form the sheath of the rectus, and to be inserted into the tuberosity of the os pubis; but a layer of fibres internal to these (the folded fibres of Sir Astley Cooper*) are implanted on the fibrous external layer of the fascia transversalis, and curve downwards to be inserted into Poupart's ligament, or proceed, according to Breschet, to form what he calls the pretended ligament of Gimbernat, and which he will not admit to be a third insertion of the external oblique muscle. These fibres are depicted by Cloquet (Plate I. fig. 3.) as belonging to the fascia transversalis, and by Breschet (Plate III. fig. 1.), in his *Considérations et Observations Anatomiques et Pathologiques sur la Hernie Fémorale*, Paris 1819, as essentially going to form the internal layer of Gimbernat's ligament, of which the fascia lata of the thigh supplies the outer. They are very distinctly shewn in Plate III. fig. I., and certain other fibres running in a less curved and more vertical direction, belonging to the anterior or fibrous layer of the fascia transversalis, are equally well marked. These fortify this part in an especial manner, and something like the way in which the outer angle of the external ring is strengthened by fibres crossing in a similar manner.

"It may appear that I am laying claim to the discovery of the muscularity of the superior opening of the inguinal canal, after such a structure had been previously described by Sir Astley Cooper. I had not, however, seen his work at the time; and it was in consequence of my mentioning my ideas to him, that he made the dissection with Mr. Owen and myself, engraved in Plate II. fig. 1., to shew us his view of the subject. The opinion, that this opening is in many instances a muscular one, was, I believe, first advanced by myself, having always maintained that point since the year 1816, although I had not been able to give a demonstrative proof of it until the delivery of my lecture on the subject in the theatre of the College of Surgeons. There is, however, a difference between us, as to the manner in which the muscularity is effected. Sir Astley Cooper considers it to be accomplished by what he calls the folded fibres of the transversalis, that is, the internal layer of the fibres of the muscle which turn down inside the ring to be inserted into Poupart's ligament, according to Breschet as tendon of the transversalis going on to form the internal layer of Gimbernat's ligament, or according to Cloquet being inserted into his anterior layer of the fascia transversalis, as a part of which he has depicted them. According to my view of the matter, the ring, opening, or slit, cannot be rendered a complete muscular circle, by any muscular fibres which merely pass over and curve round to one side for insertion; one half, or at most two-thirds only, of a circle can be effected by such disposition of fibres; but if an inferior portion of transversalis muscle be admitted, and in the manner I have demonstrated it, then the circle is completed, and its muscularity is established, in all cases in which such a disposition of fibres exists. If I might venture to try to reconcile these views, I would do it by saying that the circular structure can only take place when the opening or ring is formed by a split in the muscle, or in it and its aponeurosis, and can only be shewn advantageously as a circle when the part has suffered a certain degree of distention, which brings it to that form; but even in that case there are no perfectly circular fibres, each apparently circular one being of necessity formed of two parts, one from the upper, and one from the under edge of the transversalis."

"If the hernia is of long standing, two great changes take place in the situation and even in the structure of the parts. The opening in the transversalis muscle becomes dilated and rounded. This change takes place principally in the superior fibres of the muscle, which instead of running obliquely downwards and inwards, become more curved, the convexity being upwards and inwards, and are of course brought so much nearer to the median line of the body; and to the pubes, which gives to the insertion of the muscle itself a peculiar curvature; which is rather the effect of derangement than the natural appearance of the part. If the under edge of the opening be muscular, it will of course yield in a similar manner; and circular fibres will then be seen, which are not, I believe, observable in the part in its normal state. The fibres of the transversalis which come from above and below, and meet a little beyond the lower part of the opening, which is itself rounded, to allow the spermatic cord to lie uninjured upon it even under pressure, represent rather the truncated apex of a triangle or split than a ring. As this opening is more used, and increases in size, it becomes rounder, approaches nearer to the pubes, and the second change takes place, viz. the edges lose their sharpness, become less defined, harder and more tendinous; so that in very old herniæ the muscle loses all power over them, and the ring or opening remains unaffected by its contraction."

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* Fourth variety.

The second and third varieties are those adopted by the French anatomists. I have given a figure, copied from Mr. Blandin. It is fig. 2. Plate II.; and the remarkable circumstance in it is, that he says—what Cloquet had said before him, in 1826, and Velpeau after him—that the fleshy fibres of the transversalis muscles run across to their insertion into the edge of the rectus, leaving all that part below—viz. between its lower edge and Poupart's ligament—to be filled up by the fascia transversalis. The engraving shews this in an indisputable manner. The difference between Mr. Key and the whole body of French anatomists is this: the French anatomists (and Cloquet, with his usual labour, has given many varieties) declare this to be the most common, and therefore give it as the normal state, considering all deviations from it as varieties. Mr. Key, on the other hand, seems to consider the normal state to be that, and that only, which Sir A. Cooper has described in 1830—viz. the fourth variety. Now the French anatomists are either honest and able men, or they are not. They have described what they have seen and believe to be true, or they have not. I believe they are both honest and able men; and if this is conceded (as I am sure it will be by every surgeon in England, not excepting Mr. Key), it must be admitted either that the French description of the course of the fibres of the transversalis muscle is, at least, very often correct, or that bodies of Frenchmen are not formed like those of Englishmen. Being persuaded that the latter opinion will not be entertained, it follows as a matter of course that the description Mr. Key maintains to be the correct one, and the correct one only, can after all be so but in an equal proportion with the other, inasmuch as the two nations are at least in equal numbers. The difference between the French anatomists and myself is, that admitting and believing the transversalis to take the course they describe, in as many instances as it does the course which Mr. Key declares to be the correct one, I venture to differ from them (I acknowledge with great deference, and some hesitation) as to the fact whether the fascia transversalis alone occupies all the remaining space they declare it to do in their descriptions and engravings. My dissections have led me to believe that there is a layer of aponeurotic structure passing from without inwards, descending also from the lower edge of the transversalis as a part of its formation, and inserted into Poupart's ligament; which aponeurotic layer can be readily separated, in many instances (although, from the tenuity of both parts, not in all), from the fascia transversalis; from which it is distinguishable, in strongly-marked subjects, by the direction of its fibres, and by the fact of its being distinctly inserted into the os pubis in front of the rectus muscle, whilst the fascia transversalis separates from it, to be inserted behind it. This is the tendinous expansion of which Mr. Key says, page 197, he is on so nice a point but an incompetent judge. I regret that he thinks so, because I am of opinion that there is no man, from his ability, his knowledge, and his situation, better qualified to decide upon so important a point. If the fact be as I have stated it, the description of the inguinal canal given by Sir A. Cooper is still a correct one, although not according to his own view of the matter.

Admitting the description given by Sir A. Cooper to be critically correct, there is still a point on which Mr. Key and I are at issue. Sir Astley says that the transversalis muscle "forms an arch over the spermatic cord, and is inserted with the tendon of the internal oblique muscle into the tendinous covering of the rectus, but the lower edge of the transversalis has a very peculiar insertion; which I have hinted at in my work on Hernia, (1804.) "It begins to be fixed in Poupart's ligament, almost immediately below the commencement of the internal ring, and it continues to be inserted behind the spermatic cord into Poupart's ligament, as far as the attachment of the rectus. Thus the inguinal canal is endowed with muscular contraction, which, under the action of the abdominal muscles, serves to close it—to lessen the propensity to hernia. Sometimes a portion of muscle descends from the tendon of the transversalis, in the course of the linea semilunaris, to be inserted into the fascia transversalis, behind the cord, and into Poupart's ligament. It is this circular insertion of the transversalis which is the cause of stricture in inguinal hernia, in the course of the canal, and nearly at the upper ring."

In the letterpress accompanying the plate, he says—"Transversalis muscle, arising from Poupart's ligament, and passing around the spermatic cord at the internal ring, so that the fibres of this muscle appear behind as well as before the spermatic cord; and thus the inguinal canal is rendered a complete canal. This is a most important provision in preventing hernia; and when hernia exists, it is often the cause and the seat of stricture." I have already shewn that there is a difference of opinion on this point; for I have the misfortune to believe that the circular fibres thus specified do not exist in their natural state in the way they are described. This may be, in Mr. Key's opinion, the most consummate impudence possible, but his thinking or saying so will not settle the question to the satisfaction of even his best friends; he must, in order to convince, prove that it is so, by shewing the parts in their freshly dissected state, without any stretching or preparation, and in a body free from any herniary derangement. I doubt his being able to do so, and until he does, I hope he will allow me and others to doubt without being insulted:—it is but a small privilege for a British subject to enjoy. From having seen similar circular fibres in the same situation, which a careful investigation convinced me were merely condensed and reddened cellular membrane, I am led to believe that if they are ever muscular they are induced to take that form by distention from disease, which gives them a disposition they do not naturally possess.

The existence of the first variety is proved by my preparation in the museum of the College, of which I have given an engraving; and it is in the power of those anatomists who are desirous of satisfying themselves of the accuracy of the description, to examine and compare it with the original. They will find that the transversalis muscle in this variety, more effectively forms the wall of the abdomen, and closes it, than the fascia transversalis; and the statement made by Mr. Key, page 195—that "it is by means of this structure (the fascia transversalis) that the abdomen is closed" —is an error with reference to every instance in which the structure I have described exists.

I now proceed to femoral hernia, which occupies about four pages out of the thirty-seven of which my paper is composed; and Mr. Key is not more fortunate on this subject than the other. He is displeased with me, in inguinal hernia, because I have taken Mr. S. Cooper's summary, and in femoral hernia, because I found one elsewhere. I will now state why I have in two instances taken Mr. S. Cooper's summary, and why I did not do it in the third.

When I determined to take the subject of hernia for one of the four seasons I had the honour of being professor of anatomy and surgery to the College, I knew it was dangerous ground to tread upon; I knew it was like the heath of Roderick Dhu, every bush of which concealed a spear ready to bristle at a moment's notice. I therefore, like an old soldier, surveyed it closely, and prepared alike for attack and defence. I knew full well (and Mr. Key has proved the correctness of my foresight) that if I gave a summary, of my own writing, of the anatomical opinions commonly received in inguinal hernia, some of these dormant but impetuous spears would rise to the attack. I therefore selected the statement of a third party—of a gentleman, an old army friend, not particularly engaged in the subject, but whom I did believe to be well qualified to give a sound opinion. I thought they would not venture to charge the learned professor of surgery in the London University with ignorance, incapability, or misrepresentation, and I relied upon it that if they did, he would gird up his loins, and come forth to battle by my side. The result has justified my prudence; I have only been charged, not with having borrowed what was bad, but with having borrowed too much. His statement of femoral hernia being very long, although very good, I ventured, unhappily for me, to give one of my own, in seventeen lines, as a text. I thought this all that was necessary, as I had nothing to object to but a slight inaccuracy of language, not of fact, in the description given by Sir Astley Cooper of the descent of a femoral hernia into the sheath of the femoral vessels; an inaccuracy about which he and I had frequently conversed, but which he would not admit: and to another inaccuracy on the part of the French anatomists of 1826, which I also tried to rectify. I may have failed in both; but of that the reader must judge. I endeavoured to do it in the most delicate manner possible, and I can only regret that it is considered otherwise by any one.

I beg leave to give the passages which have incurred Mr. Key's displeasure.

"Poupart's ligament, from its origin at the superior spinous process of the ilium to its insertion at the pubes, is extended over a space more or less filled up; and constitutes what is called the crural arch. From the ilium to the outside of the femoral artery, it is admitted that there is no possibility of a protrusion taking place. From this part the arch begins to spring, and terminates at the insertion of the ligament into the pubes. The outer portion of the arch is occupied by the femoral artery and vein which pass underneath it inclosed in a sheath formed by the two layers* of fascia transversalis described at page 13. A septum separates the artery from the vein, whilst another septem confines the vein on its inside, and separates it from the absorbents generally, and from any thing there may be in that situation, constituting all that I consider to be the true sheath of the vessels. There is however a space exceeding an inch, extending from the septum on the inside of the vein to the pubes where Poupart's ligament is inserted by its lower pillar, and by what is called its third insertion, or Gimbernat's ligament. This is occupied by a continuation of the fascia, forming a barrier nearly at a right angle with the septum or sheath on the inside of the vein, and is perforated, for the passage of the absorbents*. This is called by Cloquet septum crurale, being the barrier between the abdomen and the thigh, and when weakened and forced to descend before a hernia, it is called fascia propria by Sir Astley Cooper. This same part is also called the inner and superior opening of the crural canal by the German and French anatomists; the opening through the fascia lata of the thigh which gives passage to the vena saphena to join the femoral vein, being called the inferior and exterior opening of the same canal.

The French anatomists do not describe the anterior portion of the sheath of the vessels as formed by the fibrous layer† of fascia transversalis which passes under Poupart's ligament, the crural arch, or arcade crurale, for this purpose, but consider this sheath to arise from the ligament or arch, at its lower edge, and not in the manner I have noticed it; and although they describe very accurately the barrier which exists between the inside of the femoral vein and the pubes, they do not look upon it as a part of the sheath of the vessels.

The septum crurale, as Cloquet calls it, and which I think the best name for this barrier, is not a straight partition, but a curved one, being concave upwards or inwards towards the abdomen, and convex towards the thigh, so that by a little management in dissection it may be made to assume a funnel-like shape on the thigh, and to lead to the conclusion that any thing passing into it from within must follow the inclination which such a formation naturally gives, and of course be projected against the vein, by the side of which it would pass out at the lower opening of what the French anatomists call the crural canal; this does not however occur when a femoral hernia takes place. The inside of the septum crurale, or that part which is next the abdomen, is concave, and the oval hollow formed by it is partly filled up by an absorbent gland, which is separated from the peritoneum by the cellular layer of fascia transversalis extended across from the edges of the hollow. It is in this concave septum, oval from side to side, that the hernial sac first passes; and it is this fact has made Sir Astley Cooper say, that a hernia is protruded into the sheath of the femoral vessels; but this manner of expressing it leads to the same misapprehension, in my opinion, as the French mode of describing it as protruding into the superior opening of the crural canal. They both imply or admit of its being supposed that the hernial or peritoneal sac passes down by the side of, and in direct contact with, the femoral vein, which is demonstrably an error in those who so understand it.

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* The cellular and fibrous layers, one superimposed on the other.

* Mr. Key (page 199) asks, "If it be not the sheath for the absorbent vessels, what is it?" My answer is, when a fascia, stretched horizontally, or nearly so, across a part, is pierced by a set of vessels perpendicularly, that it is an inaccuracy of language, almost amounting to a perversity, to call it a sheath.

† It is in the face of this that Mr. Key charges me with ignorance of the structure of the sheath of the vessels. He first misstates, then reprehends, because by misstating he misunderstands me, and concludes by stating the same thing that I have done.

In all the dissections of femoral herniæ I have had an opportunity of making, the septum crurale of Cloquet, or the fascia propria of Sir Astley Cooper, formed a distinct sac, separated from the septum on the inside of the femoral vein by a mass of condensed cellular structure, sometimes more than half an inch in thickness; the septum had been elongated into an outer sac for the hernia, and had grown down by the side of the sheath of the vein. The hernial sac, or peritoneum, is not then projected into the sheath of the femoral vessels, but into a separate sac, which it forms for itself by the side of them. When the French anatomists say that the hernial sac is protruded into the superior opening of the crural canal, takes the course of that canal, and reappears at its lower opening, or where the vena saphena joins the femoral vein, it is only intelligible by understanding that the hernial sac lies in contact with the femoral vein, whereas it passes by the side of it, separated from it by two portions of sheath, viz. one formed by the septum on the inside of the vein, the other by the elongated part of the septum crurale, or fascia propria, which forms the outer sac. This lies on the pubic portion of the fascia lata of the thigh, and if it descends far enough, is found outside the opening for the passage of the vena saphena, but does not come through it from the inside.

"The hernial sac having descended below Poupart's ligament, carries before it the septum, or fascia propria, and now has above it Poupart's ligament, behind it the pubic portion of the fascia lata; to the pubic or inside, Gimbernat's ligament, to the outside the sheath of the femoral vein. Breschet considers Gimbernat's ligament to be erroneously described as a third insertion of the external oblique muscle, or as a part of Poupart's ligament; and supposes it to be formed behind by the transversalis tendon, and before by the fascia lata. The manner in which the transversalis sends down its fibres to form the posterior part, is shown in Plate III. fig. 1; but the part which the fascia lata has in forming the anterior part, does not appear to me to be sufficiently appreciated. The falciform process which lies over the femoral artery, and passes inwards to attach itself to Poupart's ligament, and to form the anterior part of Gimbernat's ligament, does more than this; it passes on, and is inserted also into the pubes, on a plane lower than the insertion of the inferior pillar of Poupart's ligament, so that, in fact, it forms an arch exterior to the septum crurale, which, when it is forced to descend, is compelled to pass under it; and it is this, and not Poupart's ligament, which causes the greatest compression on the hernia, and is the seat of external stricture. This portion of the fascia lata forms an arch in reality when a hernia is protruded underneath it; but in its natural state it is not the case; the absorbent vessels pass underneath it, and through the septum near the sheath of the femoral vein; but as the falciform process of the iliac fascia lata passes on to its insertion in the pubes, it rests on, and is attached to, the pubic portion of the fascia lata. This attachment, although not a very intimate one, is sufficient to confine the part; but sometimes it is so strong just at the pubes, and forms so firm and complete a union, that drawing on one part evidently influences the other, and renders the arch a circle, through which the hernia is protruded. The anterior part, or the iliac portion of the fascia lata attached to Poupart's ligament, being tendinous, and firmly stretched across from point to point, can yield but little; the inside, or Gimbernat's ligament, can hardly yield at all; indeed it appears to retain its sharpness unimpaired. The sheath of the femoral vessels is scarcely displaced, and the under part, or the pubic portion of the fascia lata covering the pectinalis muscle, seems to be the only part which can easily make room for *the hernia to be protruded.* This it does by the separation of the attachment between it and the falciform process of the iliac fascia lata, and by the muscle beneath yeilding to the pressure.

"The structure thus described is of great importance in giving rise to stricture when any additional matter is forced into the hernial sac, and is much more frequently the cause of strangulation than has, I think, been hitherto supposed."

Mr. Key declares that the last anatomical description I have given will surprise the anatomists of the present day. I will, out of civility to him, admit that it may surprise some; but I cannot suppose it will surprise many; and as I have long demonstrated the structure in my usual winter course of lectures, I entertain a hope that if Mr. Key will take the trouble to examine the parts with my paper before him, he may be able, in some instances at least, to make himself acquainted with it.

I thus place my opinions before the public, on all occasions our judges; and in dismissing this subject, with the greatest respect for Mr. Key's talents and acknowledged ability, I can only say, that if there is any thing in my paper which has caused Sir Astley Cooper one unpleasant feeling, I regret I have written it. I have for him the most unfeigned regard; there is no man in England values his talents as an anatomist and a surgeon at a higher rate than I do. He has placed himself, by his ability and his industry, on the highest pinnacle of professional reputation. They have obtained for him, by universal consent, the highest honours.—With many thanks, I am, sir,

Your obedient servant,
G. J. Guthrie.

Berkely-street, Nov. 12, 1833.

ANALYSES AND NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'Alembert.

Bridgewater Treatise: The Hand; its Mechanism and Vital Endowments, as evincing Design. By Sir Charles Bell, K.G. H.F.R.S.L. & E. Second Edition.

We do not intend to enter upon the circumstances which led to the publication of the series of Bridgewater Treatises; our readers have doubtless become acquainted with them from other sources; nor do we feel disposed to discuss the question, which has been agitated by some of our cotemporaries, whether the subjects allotted to the different authors are the best that could have been selected by the distinguished individuals whose duty it was to execute the will of the reverend and noble testator. These things we gladly leave, in order to have more room to speak of the delightful work before us. The argument which it is the object of all the treatises to maintain, as stated in a note at the beginning of each volume, is "The power, the wisdom, and the goodness of God, as manifested in the creation;" and amongst the few topics which were suggested in the will, the "construction of the hand of man" is particularly mentioned. It is this circumstance, we make no doubt, which has led to the choice of the subject of the present treatise; and after perusing the volume, and seeing the fruitfulness of the source, we can find no reason to regret that the author's talents have been directed to it—nay, we conceive that, in reference to the important object for which the treatises have been composed, the selection has been a happy one. It tends to establish strikingly, that whatever part of the animal body we fix upon, however confined as a subject of investigation it may at first appear to be, discloses upon inquiry objects of the highest interest, and bearing a relation to the sublimest views of nature. It proves that the closest inspection of a minute portion of the animal frame raises the same sentiments of admiration for the "power, wisdom, and goodness of the Creator," as are excited by taking an extended survey of his works.

What strikes us principally in reading the whole of this volume, is the happy tone in which the author discusses the subjects contained in it, and the talent he possesses of imparting the same pleasant feeling and interest to the minds of his readers. This may, in a great measure, be traced to the diversified nature of the illustrations which the plan of his work has enabled him to present. The title of the treatise itself sets forth that it embraces the mechanism of the human hand, as well as its vital endowments; and these afford excellent opportunities for an ingenious writer to bring forward a very striking variety of topics. But although there is great ingenuity and taste displayed in the selection of the illustrations, as adapted to general readers, there is also, it must be remarked, in the style of composition, much that contributes to the attractive character of the work.

The peculiarity of style to which we allude is derived, if we mistake not, from the habit of lecturing to which the author has so long devoted himself. Those who have had the pleasure of hearing Sir Charles Bell delivering his lectures on anatomy, must have admired the power which he had of investing even the driest subjects of anatomical detail with a seducing interest. His lectures upon the bones of the skeleton, for example—a subject which is pretty generally allowed to be the least inviting in the whole course of anatomy—were always remarkable for their interest to the student. Now, if we be permitted to speculate upon what gave this character to his mode of lecturing, we should say that it proceeded from the powerful conviction which always appeared uppermost in his mind, and was often expressed, that in every part of the animal frame—in the coarsest and strongest, as well as the most delicate structure—there is design and wisdom; and that these qualities will be the more abundantly manifested to every inquirer according to the pains taken to ascertain all the uses to which the parts are applied. This mode of regarding his subject, and this habit of closely surveying the human frame, and the success which the author has had in discovering the functions of some of the most obscure parts of the body, given up despairingly by others from their difficulty, has naturally produced a confidence in the principle which he has assumed, and we may even add, seems to have fixed in his mind a new and firm foundation for the investigation of anatomy. No author, we may affirm, has done more than Sir Charles Bell, to exhibit what great results may be obtained by taking the facts of anatomy as the ground-work of physiological reasoning; relying firmly on every minute part, whether it be a twig of nerve, an oblique direction of a muscular fibre, a tortuosity in the form of an artery, or an addition of a spine of bone, being adapted to some wise purpose in the economy. It is owing to his having carried this principle through the whole course of his investigations in the nervous system, that we would ascribe his success, more than to his experiments performed upon living animals; although in some works we see him designated by the supposed proud title of "experimentalist." His experiments have been few, and only confirmatory of deductions previously drawn from studying the course of nerves and the separate functions of those parts to which they tended; a proceeding which, we may observe, comes as strictly under Bacon's definition of induction, or "experience," as the most multiplied course of experiments can be said to do, although the adherents of the opposite opinion should even urge that philosophers advise that we should "torture nature," to make her disclose her secrets. The practice of combining the demonstration of the structure of the body with arguments of a physiological kind derived from it, so as to exhibit the uses of the part in the economy, at the same time that the structure is shewn, constitutes the great art of making a lecture attractive. It not only serves to impress the minute points of demonstration firmly on the mind of the student, and to produce a continued exercise of the judgment as well as of the memory, but it is of the highest benefit, on account of the solidity which it gives to the views of the lecturer. The hearer listens with increased interest, notwithstanding there be none of the arts of oratory—none of the tricks which belong to what is usually called eloquence.

We happened once, on leaving the lecture-room of the College of Surgeons, to hear an eminent scholar and divine, who had attended the lectures of Sir Charles Bell, remark to his friend,—"It is curious, that he appears while speaking, as if he were thinking aloud." This nearly expresses what we consider to be the peculiarity of the author's style. Instead of assuming the part of an advocate, who uses all his art in pleading his cause, throws all his mind into the endeavour to influence his hearers, addressing himself as much to the imagination as to the judgment, we find, on the contrary, that he rather puts himself before us as the philosopher, disclosing in simple language the successive steps by which his conclusion has been reached. Not being indifferent, but engaging with obvious pleasure in the pursuit, he relies on the investigation being alike interesting to his hearers as to himself, and this very confidence serves to make others participate in his feelings of ardour. Putting a liberal trust, also, in the intelligence of his auditors, as well as in his own powers of clear and easy diction, he applies himself, without unnatural straining after effect, to the main object of his discourse. But to preserve the true, faithful record, of what has occurred to the mind, in a process of investigation, to express briefly, clearly, and perfectly—as it were directly from the suggestions of the mind itself,—the thoughts as they arise, and to omit nothing and add nothing, so as to present the whole in a genuine form, is the difficult part of the task. When accomplished, then even the least intelligent of those who hear will perceive that the links in the chain are entire, and they will receive delight.

We are led to make these remarks from recognizing, in the style of the treatise before us, a strong resemblance to the manner of the author's lecturing. There is the same close and rigorous method of examining the facts of anatomy, and deducing from them striking conclusions as to the design and adaptation of the particular structures. Sufficient attention is always paid to making these results obvious to the understanding of his readers; but a wise forbearance is shewn in the manner of applying them. He avoids to press his conclusions as far as they might easily be carried, preferring, when the argument has been conducted to a certain length, to leave something for the reader's own mind to fill up, rather than stating it, as it were officiously and needlessly. This tact or reserve is, we think, especially called for when a layman is required, by the nature of his subject, as in the present treatise, to make frequent reference to subjects purely religious. It has, however, a tendency to produce an abruptness in the method of dismissing one subject in order to pass on to another—an awkwardness of which this work presents several examples, which we should like to see removed by a little more care in the composition.

There is another circumstance which we have remarked, and may be allowed to refer to briefly. It is obvious, that when a writer has the art of combining any topic in a train of general reasoning, so that it becomes an argument in confirmation of what he attempts to prove, he invests this new subject with an additional interest, derived in part from the question that has to be solved. In this manner, subjects that appear scattered, may be indued with a common interest, and the author may descant freely upon the several topics without departing from his proper object of pursuit. We can observe a frequent recourse to this mode of giving variety and interest to the subjects. Now, although there is much danger of its leading to a too discursive style of writing, we think that it has been very legitimately used in this instance. Topics which would, doubtless, if they stood alone, be considered of trifling interest, obtain readily, when engrafted upon the discussion of important principles, an adventitious consequence, by contributing to the general result. We may offer an example of what we mean:—A considerable part of the treatise is occupied with illustrations of the correspondence which exists between the structure of the arm and hand in man, and the analogous organs for motion and prehension in other animals. Distinct notices are accordingly given of the anterior extremities of the monkey, bear, sloth, mole, bird, bat, horse, camel, elephant, lion, &c. &c.: these have assuredly a certain interest individually, on their own account, but they acquire their principal importance from affording such multiplied proofs of the truth of the leading principle—that one system of bones and muscles can be adapted to the different instincts and different states of existence of classes of animals so numerous and so various. Sir Charles Bell remarks:—"The wonder still is, that whether we examine this system in man, or in any of the inferior species of animals, nothing can be more curiously adjusted or appropriated; and we should be inclined to say, whatever instance occupied our thoughts for the time, that to this particular object the system had been framed."

The pursuit of the principle just stated, naturally leads to critical observations on the views of some zoologists, who carry it to an extravagant length, founding the theory of "elementary" parts upon it, and acknowledging no exceptions to the rule. This, by itself, forms another highly interesting object of inquiry; for it can be proved, by referring to some of the examples, and shewing perfectly new forms introduced, that the law is *modified by a more general one, of preserving* a relation between the structure and the pecularities in the condition of the animal's existence. Combined, again, with this train of reflection, and suggested by the instances casually presented, we have other questions for discussion started and pursued; such as that interesting principle, so beautifully developed by Cuvier, that the individual parts of the body are formed in a just correspondence with the whole structure, and may denote even by the minute peculiarities of their forms, the general character of the animal. It is this principle, when applied to the explanation of fossil bones belonging to extinct species of animals, which gives a spirit and interest to what would otherwise be repulsive to general readers—the minute details of the structure of the bones. It is shewn that not only do all the bones composing the anterior extremity, from the shoulder to the finger, bear a reciprocal relation to each other, but that there is not even a roughness or spine for the attachment of a muscle, or a groove for the lodgment of a tendon, or a smooth surface for the articulation of a joint, which does not indicate, if scanned aright, the most curious conclusions as to the habits of the animal, and the scene in which it had its existence. "The mind of the inquirer is carried back not merely to the contemplation of animal structure, but by inference, from the system of animal organization to the structure of the globe itself." In another part the author thus refers to these fossil bones:—

"The bones thus exposed become naturally a subject of intense interest, and are unexpectedly connected with the inquiry in which we are engaged. Among other important conclusions, they lead to this—that there is not only a scheme or system of animal structure pervading all the classes of animals which inhabit the earth, but that the principle of this great plan of creation was in operation, and governed the formation of those animals which existed previous to the revolutions which the earth has undergone; that the excellence of form now seen in the skeleton of man was in the scheme of animal existence long previous to the formation of man, and before the surface of the earth was prepared for him, or suited to his constitution, structure, or capacities."

"In examining these bones of the ancient world, so regularly are they formed on the same principle which is evident in the animals now inhabiting the earth, that on observing their shape and the processes by which their muscles were attached, we can reduce the animals to which they belonged to their orders, genera, and species, with as much precision as if the recent bodies had been submitted to the eye of the anatomist. Not only can we demonstrate that their feet were adapted to the solid ground, or to the oozy bed of rivers, for speed, or for grasping and tearing; but, judging by these indications, of the habits of the animals, we acquire a knowledge of the condition of the earth during their period of existence—that it was suited, at one time, to the scaly tribe of the lacertæ, with languid motion; at another, to animals of higher organization, with more varied and lively habits; and finally, we learn that at any period previous to man's creation, the surface of the earth would have been unsuitable to him."

We are tempted to give a further extract, to shew how this subject may be pursued, so as to explain the phenomenon of distinct races of these animals being discovered in particular strata only—a circumstance which, taken together with some of the recently promulgated views concerning the development of animal life, has given rise to some curious theories. The subject is introduced by ingenious criticisms of the opinions of Buffon and of Cuvier, who profess, in their writings, to entertain sentiments of pity towards certain animals now living, which they consider to be miserably provided for existence, and whose congeners they would have us to look for, so much have they misunderstood the modes of life of these creatures, "in the ruins of the ancient world, among those animals which have been effaced, as failures, from the list of living beings."

"We have already hinted, that geologists have discovered, that in the stratified rocks there is proof of a regular succession of formations in the crust of the earth, and that animals of very different structure have been imbedded and are preserved in them. In the earlier formed strata, animals are found which are low, as we choose to express it, in the chain of existence; in higher strata, oviparous animals of great bulk, and of more complex structure, are discovered; above the strata containing these oviparous reptiles, there are found mammalia; and in the looser and more superficial stratum are the bones of the mastodon, megatherium, rhinoceros, elephant, &c. We must add, that zoologists agree that man has been created last of all. *Upon these facts a theory is raised, that* there has been a succession of animals gradually increasing in the perfection of their structure; that the first impulse of nature was not sufficient to the production of the highest and most perfect; and that it was only in her mature efforts that mammalia were produced. We are led to this reflection: that the creation of a living animal, the bestowing of life on a corporeal frame, however simple the structure of that body, is of itself an act of creative power, so inconceivably great, that we have no title to presume that any change in the organization, such as the provision of bones and muscles, or the production of new organs of sense, is a higher effort of that power. We have a better guide in exploring the varieties of animated nature, when we acknowledge the manifest design with which all is accomplished: the adaptation of the animals, their size, their economy, their organs, and instruments to their condition. Whether we make the most superficial or most profound examination of animals, in their natural state, we shall find that the varieties are so balanced as to ensure the existence of all. This, we think, goes far to explain, first, why the remains of certain animals are found in certain strata, which imply a peculiar condition of the earth's surface; and, secondly, why these animals are found grouped together: for, as we may express it, if there had been an error in the grouping, there must have been a destruction of the whole, the balance necessary to their existence having been destroyed. We know very well that so minute a thing as a fly will produce millions, which, if not checked, will ere long darken the air, and render whole regions desolate: so that if the breeze does not carry them in due time into the desert, or into the ocean, the destruction will be most fearful. As in the present day every creature has its natural enemy, or is checked in production, sometimes by a limited supply of food, sometimes by disease, or by the influence of seasons, and as in the whole a balance is preserved, we may reasonably apply the same principle in explanation of the condition of things as they existed in the earlier stages of the world's progress. Certainly this view is borne out by what we have as yet discovered in the grouping of animals in the different stratifications or deposits of the earth. If the naturalist or geologist, exploring the rocks of secondary formation, should find animals of the class mollusca enclosed within them, it agrees with the preconceived notions, that only animals of their simple structure were in existence at the time of the subsidence of that matter of which the rock consists; but if the spine of a fish, or a jaw-bone, or a tooth, be discovered, he is much disturbed, because here *is the indication of an animal having been at that time formed on a different type*—on that plan which belongs to animals of a superior class. Whereas, on the supposition that animals are created with that relation to circumstances which we have just alluded to, it would only imply that certain animals, which had hitherto increased undisturbed, had arrived at a period when their numbers were to be limited; or that the condition of the elements and the abundance of food were now suited to the existence of a species of vertebrata. The principle, then, in the application of which we shall be borne out, is, that there is an adaptation—an established and universal relation—between the instincts, organization, and instruments of animals, on the one hand, and the elements in which they are to live, the position which they are to hold, and the means of obtaining food, on the other; and this holds good with respect to the animals which have existed, as well as those which now exist."

It is by thus connecting his subject with various questions of a general bearing, and identifying it with them, that the author contrives to preserve so lively an interest for the illustrations which he gives.

We regret that the length of these extracts, and our own remarks, precludes the possibility of our giving a just view of the contents of the last half of the treatise. This part is devoted almost entirely to the consideration of the vital endowments of the hand; and the application of the conclusions drawn from these to the principal argument—of shewing design—is even of a more interesting nature than the illustrations contained in the former part. Contemplating the hand as an organ of the senses, gives the author an opportunity to enter upon several novel and important views relating to the general sensibilities of the body. We must not omit to recommend to the attention of our readers the disquisition upon the sense of muscular action, as connected with the organ of touch; and also the comparison which is instituted, in illustration of the same subject, between the hand and the organ of vision, including the muscles of the eye and the various nerves of the orbit It is in this latter part of the volume that there is the greatest originality; and the topics, some of which are of the profoundest nature, embracing criticisms of the opinions of our most celebrated philosophers, on points strictly philosophical, but opposing themselves to his views, are always treated in an agreeable manner, and in language which is easily understood.

We cannot conclude the notice of this work, in which we have had so many opportunities of observing the elevated views and philosophical spirit with which anatomical subjects are treated, and of being reminded of the animated and impressive manner of the author, in lecturing, without expressing our deep regret that the present race of medical students are deprived of his services as a lecturer. Seeing one, possessed, as he is, of the highest qualifications for improving his favourite study, and extending the knowledge of important principles, withdrawn from a pursuit which he has cultivated during so many years of zealous and devoted labour, and when he has attained an acknowledged eminence in it, we are naturally led to reflect on the causes which induced him to retire from the teaching of anatomy. We do not think that a more important question could be agitated by the profession than the effects which are likely to result from the system of teaching medicine, which has recently come into operation in London. We see large public institutions rising up, supported by subscriptions, and capable, by combination, of bolstering up their teachers, instead of their being made, as in private schools, to depend for their success on the celebrity of the lecturers! and one obvious result is, to deprive us of the services of such men as Sir Charles Bell.

⁂ *We have this week been compelled to give half a sheet* EXTRA LIMITES, *for which, however, no addition is made to the price of the Journal.*

MEDICAL GAZETTE.

Saturday, November 16, 1833.

Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."
CICERO.

THOUGHTS ON MEDICAL REFORM.

ROYAL COMMISSION *versus* PARLIAMENTARY COMMITTEE.

IN our notice of the pamphlet of a "retired practitioner" last week, after having pointed out some of the opinions it advocated, in which we did not altogether agree, we remarked that it contained some views and suggestions which claimed every attention; and a deliberate reperusal of the brochure has induced us to complete the account of it, which our confined space then prevented. But first we would advert to the observation of a highly-intelligent correspondent, who, in a letter in our last number, (which we recommend to the perusal of those interested in medical reform), remarks, that while the other journals are distinctly conducted on *radical* principles, *we* are "more than suspected of party feeling, though of an anti-radical or conservative complexion." Now we shall not venture to say that we are entirely free from party bias; nor that, in our efforts to oppose opinions which we regard as injurious to the interests or respectability of the profession, we may not occasionally strain the argument to its fullest bearing. It would probably be very difficult to avoid this, without becoming lukewarm in the cause, and tame in its discussion. To the term "anti-radical" we make no objection, because we look upon radicals, in medical as in general politics, to be synonymous with *destructives;* and the parties to be made up, in both alike, of men broken in character and bankrupt in fortune, who are actuated by the consideration that they may possibly gain in the *melée*, if they can succeed in bringing matters to such an issue; while, for the best of all reasons, they can lose nothing, and therefore are reckless of the consequences. But whether we accept the appellation of "conservative" must depend much on the meaning which is attached to that expression. If it be implied that we would be "conservative" of any abuse, we must strongly deny the imputation; or even if it be meant that we should wish to see our medical institutions perpetuated on their present footing, then also must we decline the term. We regard our three great professional institutions of physicians, surgeons, and apothecaries, as defective, inefficient, or corrupt; and few, we apprehend, would desire that the present excitement should subside without great, and, if we may venture to use the expression, *radical* changes being effected. The observation of "a retired practitioner" is but too true:—"It is a just though trite observation, that persons invested with privileges for the public good are apt to forget the conditions on which they were granted, and to act as if the prerogatives they enjoy were given to them for their own pleasure and advantage, and not for the use or benefit of the community Governments are too much disposed to regard the delegated authority they hold as their inherent right, and where their interests or prejudices are at variance with those of their subjects, to employ the power they possess as an instrument of tyranny, instead of being a shield of protection to the governed." Herein is the root of much, if not of all the evil; and the observations made in the general, are lamentably applicable to our profession in particular.

We have three different governing bodies, each jealous of the other—each striving to preserve or extend its own particular privileges — each having boards for examining aspirants and granting licenses, the members of which but too obviously look upon the situation as one of emolument, and are therefore anxious to secure (honestly, no doubt, if possible) the greatest share of patronage, or rather of *custom*, to themselves.

With regard to the College of Physicians, we have so often expressed our opinion—that it was of the three corporations the most inefficient—that it can scarcely be necessary for us to reiterate our opinions. The College has been declining ever since licensing general practitioners was placed in the hands of the Society of Apothecaries; and unless it be renovated by some vigorous and wholesome measure, the race of physicians, such as it has formerly been, will *go out*, and we shall have in their place Edinburgh and other medical graduates practising as apothecaries. We suspect it is too late to talk of appointing a committee to revise the by-laws—at least, if they take as much time to do so as they have spent upon the yet unaccomplished object of making a new Pharmacopœia, they might as well leave it alone. A better plan would probably be, failing this, to repeal them altogether, or to send their charter to the government, with an intimation that it is wholly unsuited to the present times; and that, besides having lapsed into a mere University club, it was no longer of any service to themselves or to the public

Of the College of Surgeons we had hoped much better things than we seem likely to receive from them. It is now many months since we published an abstract of a report presented to the Council by a committee appointed to inquire into what improvements might be made. That document comprised suggestions which, if acted upon, would have given a fresh impetus to British surgery—would have elevated the science, and raised the general character of its followers. What has become of that report? We hear nothing of it, or rather we hear that nothing is to come of it. Was it too disinterested in principle—too enlarged for the grasp of the Council? If so, it is time that a stronger arm should interpose, and those amendments be made for them, which they lack intelligence or public spirit to make for themselves.

The Society of Apothecaries is the least sinning of the three: they "have had greatness thrust upon them;" but, like Malvolio's, it sits upon them somewhat awkwardly. Their regulations, too, like his "cross gartering," are somewhat overdone—somewhat too tight laced: they have aimed at too much; and it was scarcely to be expected that powers so extensive as they—we might almost say accidentally — obtained, should be allowed to continue without important modification. The double examination, for instance, at present required of pupils, at the College of Surgeons and Apothecaries' Hall, constitutes an incongruity, and is felt to be a grievance. The *general* practitioner—that is, one who is to practise medicine and surgery—ought to be licensed by a *general* Board, and the two ordeals blended into one; and which, we may add, ought to be conducted by persons holding the highest rank in their several departments.

Constituted as our public institutions at present are, and each having separate interests of its own to maintain, we can scarcely look for such unity and disinterestedness of purpose as our suggestions would imply; and we do not now expect that any thing satisfactory to the profession at large will be accomplished, without the interference of the government. Now this confession of faith is consistent with being "anti-radical," but whether it come under the description of "conservative," we leave it for others to decide. Our object is, not to preserve existing institutions as they at present are, but to keep all power from the hands of demagogues, whose only object is to destroy, that they may establish themselves in the place of others: as Wakley, for instance, tried to establish a college of his own—God save the mark!—upon the ruins of that in Lincoln's-inn Fields. Faulty as our institutions are, they are not so utterly despicable as they would become were such persons left "to lord it uncontrolled above their betters."

How the government might best interfere, is matter of question. The "retired practitioner" owns that "whether this be effected by the House of Commons or by a Royal Commission, much previous discussion is wanting, before these invested with authority to reform can have sufficient means of information to direct them, safely and wisely, in that difficult and important work." We regret, however, that he has not given an opinion regarding what mode ought to be preferred, for that is the first point to be determined. The bulk of the profession (so far as we have the means of ascertaining their opinions) are in favour of a parliamentary inquiry. On this point we have the misfortune to be at issue with them, and should prefer a Royal Commission, for various reasons, which we shall detail. And first we would endeavour to remove what we conceive to be an unfounded prejudice against this kind of investigation — namely, that it is obnoxious to jobbing, and liable to be composed of persons favourable to the abuses they are called upon to correct. This certainly is not borne out by the result of the commission in which our profession was indirectly concerned, appointed a few years ago to investigate the state of the Scotch Universities. Nothing of the kind could be more strictly impartial, or more rigidly attentive to the public interests; and the report constitutes such a model as we should like to see taken for imitation by any body of men delegated to inquire into the state of medicine.

The members of a Royal Commission, as it appears to us, are much less likely to be influenced by party feelings themselves, or deceived by partial witnesses; because they would, by visiting different institutions, have an opportunity of judging for themselves, by personal investigation; and they are thus much more likely to come to correct conclusions than those who must necessarily be guided by evidence at second hand, and coming often from interested parties. There are proportionally so few men of science among them, that it would unquestionably be very difficult to find, in the House of Parliament, a sufficient number of persons who were both qualified and willing to undertake the investigation; whereas the more extended field from which a Commission might be chosen would easily afford an adequate number of individuals, so unconnected with any party, and so well known for their general attainments, as would command the confidence of all; nor, from the circumstances alluded to, would their means of conducting the investigation be less remarkable for its superiority. It is true that, as a body, we derived great benefit from the result of the Anatomical Committee; but that was less a party question, as regarded our profession—for all agreed in anxiously desiring that something might be done, and in representing the necessity for legislative interference as of the most imperative description. But with respect to the questions which now agitate the medical body, the circumstances are very different: there are radical and conservative parties struggling against each other; nor can it reasonably be expected, considering how high party feeling at present runs in politics, that members of parliament should entirely divest themselves, on this particular question, of motives, which are so strongly manifested on others. It is very easy, on reading over the Minutes of the late Vaccine Committee, to perceive that the extremes of political feeling had each their representative, and that the questions put to the witnesses were in some instances intended to elicit an answer favourable to some particular view, rather than to elucidate the general subject. Neither, we confess, do we think that the recommendation that a Vaccine Board should be appointed, retaining the responsibility, but deprived of all emolument, is very encouraging, as to the feelings with which parliament would legislate on such subjects; at the same time it must be acknowledged that the suggestion, in this particular instance, probably arose from the offer stated by the reporter to have been made from another quarter, to have the duties performed gratuitously;—a striking illustration, by the way, of that jealousy among the higher powers in medicine, which tends so much to break our moral strength. We are, in fact, at present, like the bundle of dissevered rods, and devoutly do we wish that some strong and skilful hand would bind us together, and confer that power by union which we can never hope for in our present state. But to return: It is impossible not to be struck with the entire ignorance of the internal polity of our profession displayed by honourable members, when by accident a question involving any thing connected with us comes before them. There may be a few exceptions to this, but they are very few; and it is farther to be lamented that those who do seem at all acquainted with the subject belong chiefly to the radical party, and have imbibed their opinions from polluted sources. Again, several of those who have sat, and probably would again sit, on any committee relating to medicine, are proprietors of an institution, in the interests of which they have a direct and overwhelming concern—resulting, both from their feelings being engaged in the support of a protege, and from still more objectionable considerations of a pecuniary nature. It is needless to do more, in illustration of the influence of this principle, than refer to the unblushing manner in which money subscribed for a totally different purpose was recently appropriated to the London University, without consulting those from whose pockets it was extracted. Undoubtedly the professional public would not be satisfied with an investigation conducted by men, any one of whom was a proprictor of any institution whose interests were involved in the result. Yet we ask, if a parliamentary committee be appointed, will not such be the case? One of the great objects of the "retired practitioner" is to contend against "the spirit of monopoly." This is indeed a spirit so subtile, that it finds its way into the bosoms of all whose interests become involved in its maintenance; and we protest, that in none of the most corrupt of our old institutions does the grasping desire to produce an imposing effect by grandiloquent pretensions, or to secure what they can thus obtain by the strong bond of chartered and exclusive privilege, shine forth more conspicuously than in certain of the new establishments and their politico-mercantile supporters.

The author of the pamphlet before us, though he would apply his remedies with no sparing hand as regards the present system, is yet far from joining in the cry for equality, which constitutes the radical cant of the day, and which we shewed in a former article (Oct. 26) to be theoretically absurd, and practically impossible.

> "If," says the Retired Practitioner, "the same education and attainments were required from all persons who applied for medical diplomas, one of two consequences must follow. If a long and expensive education were necessary for every medical degree, the number of graduates would be small, and the bulk of mankind would be compelled, in sickness and in suffering, to confide the care of their health to persons who had no certificate to produce of their fitness to practise physic, in which case, as far as the public is concerned, there might as well be no degrees at all. If, on the other hand, the standard of qualification were made so low as to admit a sufficient number of graduates to meet the demands of society for medical assistance, few physicians would be found thoroughly instructed in all the branches of knowledge necessary for the advancement of their profession;—medicine, whether considered as a liberal science, or as a practical art for the relief and cure of human sufferings, would improve slowly, if at all."

In the above we fully concur, and have only to add, that while we think the education required for the lower qualification is quite as high as it ought to be, *that for the physician and surgeon is not high enough.*

We are glad to perceive that our author advocates the propriety of a preliminary education, and this, we think, ought never to be lost sight of:—but our limits prevent us from entering into details on this point, as we wish to advert to another suggestion, which daily observation proves to be well founded, and to refer to an evil which strongly calls for redress:—

> "There is still room for a third class of medical practitioners. No one will deny that those who prepare medical prescriptions ought to be versed in pharmacy; and that those who vend medicines in retail ought to know the proper doses and usual effects of the preparations they dispense. But, if this be admitted, it is clear that persons who undertake that branch of the medical profession, ought to have some definite course of education prescribed for them, and an opportunity afforded them of proving, by examination before a competent tribunal, that they are duly qualified to exercise the art which they profess. It is unnecessary to add, that the persons who prepare and vend medicines in retail are not bound at present to follow any course of study whatever, or to produce any test, however small, of their sufficiency; and that the public has, of course, no means of distinguishing those who understand their business from those who understand it not."

Now, suppose the divisions of the profession to be agreed upon, there still would remain to determine by what body diplomas or licenses should be granted. We agree with the "Retired Practitioner," that "it should be composed of persons removed as far as possible from the influence of local prejudice or private interest;" but we cannot concur in thinking that this would be accomplished by entrusting teachers with the examination of their own pupils, nor that " regard to their own reputation, and a desire to maintain the character of the school to which they belonged, would prevent any Board of Examiners *from granting undue facilities.*" *We think on the contrary that the experience* of Edinburgh with respect to graduates in physic, has demonstrated just the reverse of this position: we are not prepared to say how it might best be managed, but we are quite decided in our opinion as to how it ought not to be done. Perhaps a (not *the*) College of Physicians ought to be entrusted with the Medical department, a College of Surgeons with the Surgical, and a joint Board when the examination involved both branches of the art; or we might have an entirely independent Board, unconnected with either institution;—in short, whatever was most effectually removed "from the influence of local prejudice or private interest," would be the best.

There is much, very much room, for discussion on these subjects, and it is consolatory to find, that neither the distractions of politics, nor the pursuits of literature, have been able to abate the interest which "the Retired Practitioner" still takes in the concerns of the profession to which he once belonged; and although we do not go along with him in all his opinions, yet we have no hesitation in adding, that in giving the preference to a Royal Commission over a Parliamentary Committee, one advantage which we contemplate is the possibility of such persons as the accomplished author constituting one of its members.

COLLEGE OF PHYSICIANS.

We understand that a committee has been appointed to revise the by-laws, especially those which relate to admission into the fellowship.

ASSOCIATED LICENTIATES.

A DEPUTATION from this body had lately an interview with Lord Melbourne, to protest against any additional power being granted to the College of Physicians until they amended their by-laws. His Lordship informed them that no changes would be made involving medical concerns till after an official inquiry. Some of the deputation then expressed their hope that the investigation might be carried on by a Parliamentary Committee, with *Mr. Warburton* as chairman, but *could not extort any indication of acquiescence from the noble Secretary;* and their impression was, that he did not concur with their opinion.

COLLEGE OF SURGEONS—ENLARGEMENT OF THE BUILDING.

The Council of the College of Surgeons about a year ago purchased the house adjoining their building, and measures are now in progress for making extensive alterations and improvements in the Museum and Library. For this purpose several architects have been invited to send in plans; and we most earnestly hope that all jobbing—the vice of public bodies on such occasions—may be avoided. By the way, the College has no time to lose in "setting their house in order:" might they not contrive to do so in the figurative as well as in the literal acceptation of the words?

ADDRESSES

TO THE LATE MEDICAL OFFICERS OF THE ALDERSGATE-STREET DISPENSARY.

From BIRMINGHAM.

At a meeting of the medical profession in Birmingham, on the 12th inst. resolutions were passed, and an address agreed to, as follows:—

We, the undersigned physicians and surgeons of the town of Birmingham, beg you to receive the homage of our respect and sympathy, in addressing you on your spirited and independent conduct in resigning your offices in the Dispensary, rather than submit to regulations which you deemed inconsistent with the honour and dignity of the medical profession.

We cordially agree with you in the principle that such appointments to public charities should be free even from the suspicion of being bought or sold; and we trust that your virtuous example will be emulated by your professional brethren, in every town and county of the empire.

Accept, then, the expression of our warmest admiration, entitled, as we believe you are, to the thanks and approbation of the profession at large.

Signed by Dr. John Johnstone, F.R.S. Chairman of the meeting; Dr. Johnstone; and above 80 others, including all the most distinguished medical practitioners and lecturers in Birmingham.

From COLCHESTER.

WE can only find room to mention that an address, to the same effect as those already published, has been forwarded to us by the Colchester Medical Society. It is signed by Mr. Tomkin, the chairman of the meeting, and fourteen other medical gentlemen.

ROYAL COLLEGE OF SURGEONS IN LONDON.

To the Editor of the Medical Gazette.

8th November, 1833.

SIR,

BY desire of the President, I transmit to you the enclosed copy of a Circular to the Lecturers recognized by this College.

I am, sir,
Your most obedient servant,
EDM. BELFOUR, *Secretary*.

31st October, 1833.

SIR,

I AM directed by the Court of Examiners to acquaint you, that certificates of attendance on lectures have been offered to the Court, in order to entitle the candidates to examination for the diploma of this College, which certificates the Court are fully satisfied were obtained under false pretences.

I am further directed to request you will inform the students composing your class of the extreme dissatisfaction and regret with which the Court have made this discovery, and that you will assure them the Court will in future punish, with the utmost severity the law permits, all persons who may be implicated in a similar offence.—I am, sir,

Your most obedient humble servant,
EDM. BALFOUR, *Secretary*.

HYDROCYANIC ACID.

To the Editor of the Medical Gazette.

SIR,

BE pleased to correct an error which appears to have been committed in my note on hydrocyanic acid inserted in the Medical Gazette of last week. At page 209 the specific gravity is stated as being 922, instead of 992, which is the actual specific gravity of the acid referred to.

I remain, sir,
Your obedient servant,
H. GARDEN.

Oxford-street, Nov. 11, 1833.

WEEKLY ACCOUNT OF BURIALS,

From BILLS OF MORTALITY, *Nov.* 12, 1833.

Abscess . .	1	Hooping-Cough .	7
Age and Debility .	22	Indigestion . .	1
Apoplexy . .	8	Inflammation .	20
Asthma . .	1	Bowels & Stomach	12
Cancer . .	1	Brain . .	3
Childbirth . .	5	Lungs and Pleura	11
Consumption .	51	Insanity . .	4
Convulsions .	27	Liver, diseased .	3
Croup . . .	2	Measles . .	6
Dentition or Teething	6	Paralysis . .	3
Diarrhœa . .	1	Scrofula . .	1
Dropsy . .	17	Small-Pox . .	6
Dropsy on the Brain	10	Sore Throat and Quinsey . .	1
Dropsy on the Chest	2	Spasms . .	1
Erysipelas . .	1	Stricture . .	1
Fever . . .	8	Thrush . .	2
Fever, Scarlet .	12	Tumor . .	1
Fever, Typhus .	3	Unknown Causes	3
Fistula . .	1		
Gout . . .	1		
Hæmorrhage .	2		
Hernia . .	1	Stil'born . .	16

Increase of Burials, as compared with the preceding week . . . 10

METEOROLOGICAL JOURNAL.

Nov. 1833	THERMOMETER.		BAROMETER.	
Thursday . 7	from 36	to 47	29 82	to 29 68
Friday . . 8	29	48	29 64	29·80
Saturday . 9	31	49	29 87	29 99
Sunday . . 10	41	52	29 96	29 93
Monday . . 11	43	54	30 00	30 07
Tuesday . . 12	36	49	30 11	30 16
Wednesday 13	39	49	30 17	Stat.

Prevailing wind, S.W.

Except the 8th and 9th, cloudy; rain at times on the 7th and 11th; a dense fog during the 12th.

Rain fallen, ·875 of an inch.

NOTICES.

"A *Constant* Reader," were he consistent with his assumed title, should have known that we have repeatedly explained the point about which he inquires. We refer him, for his immediate satisfaction, to our last volume, p. 814; also to vol. ix. p. 981, and vol. x. p. 654.

ADDRESSES.—It having been suggested to us, that our declining to publish any more of these documents in the body of our journal, would create disappointment in parts of the country, where our intention was not known at the time of their being forwarded to us, we have departed, in some measure, from our purpose this week; but shall in future be obliged to do as we have announced.

W. WILSON, Printer, 57, Skinner-Street, London.

THE

LONDON MEDICAL GAZETTE,

BEING A

WEEKLY JOURNAL

OF

Medicine and the Collateral Sciences.

SATURDAY, NOVEMBER 23, 1833.

LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY;

Delivered at the London Hospital,

BY FRANCIS H. RAMSBOTHAM, M.D.

LECTURE VII.

MENSTRUATION.

Definition.—Every healthy woman, when not pregnant or suckling, is the subject of a peculiar discharge from the uterus, returning at stated intervals, and continuing to flow periodically, from the time of puberty until old age approaches.

Etymology.—In consequence of this appearance being about every 28 days, nearly agreeing in this respect with the time occupied by the revolution of the moon, the term *menstruation* was adopted. In every country and every age the name by which this singular phenomenon has been described, bears some reference to the period of its recurrence. In France, they designate it *les menstrués;* and *mois de femmes*, in reference to the month; also *les règles*, from the general regularity of its return. The Romans called it *menses;* and the Greeks *καταμηνια*. In England, we have preserved the Latin name, and call the flowing of the menses "the act of menstruation." Other terms have been used, and are still retained among the lower classes. In most of the old books, you will find it described as the *flowers* or the *courses* of the woman; these expressions, however, are now not tolerated in scientific and polite language.

Exceptions to the definition.—There are some exceptions to the definition I have given: it is said that some women never menstruate. Dr. Denman mentions having known two instances of this fact, in both of which cases the subjects married, and were barren. Some women, again, menstruate while suckling, more frequently, I believe, with a first child than afterwards. Married women, also, may pass over many years of their life free from this discharge, although in the enjoyment of perfect health, in consequence of its suspension during pregnancy and suckling. If, for instance, a woman fall with child immediately after she has weaned a former infant, and just before her menstrual period ought to have arrived, she will, according to nature's law, not menstruate again until after her lying-in, and the termination of her time of suckling: she may a second time be impregnated before menstruating, and in this way bring forth a number of children, without the discharge again appearing. Many cases of this kind are upon record, and a few in which conception occurred before the menses ever flowed. Thus Sir Everard Home has recorded the case of a girl who had three children before she menstruated once; Morgagni mentions a mother and daughter who were both parents before menstruating. La Motte speaks of similar cases, and Fodéré knew a woman who had menstruated but once, and that in her 17th year, although enjoying good health, the mother of several children, and 35 years old.

Alleged national exemption from the menses.—The women of Brazil, and other native Americans, have been said by some travellers to be exempt from menstruation; but this is certainly not the fact, and the remark originated in the circumstance of the women, though almost entirely naked, never having been observed menstruating. The truth is, that during the continuance of their menstrual period, they are considered unclean, are not associated with, and never allow a male even of their own nation, much less an European, to come within their sight. Boerhaave was certainly led into error when he assures us, that there are whole nations whose women are destitute of the catamenia.

Supposed liability of other species to menstruation.—The females of other species have been described by different naturalists as being subject to regular menstruation. Buffon certainly entertained this idea, contrary to the opinion of Pliny, who considered woman as the only menstruating animal. Modern physiologists are unanimous in adopting the opinion of Pliny. Blumenbach, in some degree explains the cause of this contradiction, when he says—"I know, indeed, that the same discharge has been ascribed to other animals, particularly those of the order Quadrumana. I have carefully inquired concerning all the female monkeys which I have seen exhibited for the last twenty years, and have found some of them liable to uterine hæmorrhage, which observed no period, and was regarded by the more intelligent keepers as a circumstance arising from disease; although they acknowledged that in order to excite the admiration of their visitors they often represented it as true menstruation."

Influence on the general health.—Women watch most anxiously the proper performance of this function, supposing that it powerfully influences the health of the individual, and erroneously attribute almost all the diseases to which they are peculiarly subject, to an irregularity in its appearance, considering that as the cause which indeed is only an effect. It is certainly true that the regular appearance of the menses may be considered a mark of general as well as uterine health, and any great deviation from the ordinary course a symptom of disease, either general or local.

Keeping this circumstance in mind, it is advisable sometimes to inquire of our female patients whether this function is properly performed;—but in addressing a woman on the subject, the height of civilization to which we have arrived requires that we should have recourse to some indirect method of obtaining the desired information, and use some softened expression, the import of which, although generally bearing a very different signification, is universally understood by females in the sense we wish to convey. Thus we inquire, "whether she is regular;"—"how long it is since she was last unwell;"—carefully avoiding such a word as menstruation, or any other direct term. Although, however, in familiar language, we say that a woman is "unwell," when under the state of menstruation, you must not suppose that this discharge is the consequence of any diseased action; on the contrary, it is the surest sign of a healthy state of the uterine system; and the expression has crept into use merely because in most constitutions it is attended with feelings of languor and uneasiness, such as are generally the accompaniments of a slight state of indisposition; while, in some, at each return it brings with it considerable suffering.

We shall now proceed to the consideration of the symptoms attending the first appearance of the menses; and afterwards endeavour to select, from the numerous opinions which have been hazarded on the subject, that theory most agreeable to the present refined state of physiology.

Symptoms.—At the time of puberty, great and analogous changes are effected in the constitution and appearance of persons of each sex. Until that age, all the powers of life are required for perfecting and bringing to maturity the growing animal, and we may readily believe that the increasing size of the body expends the supply immediately on its being furnished; but as soon as the person has reached its natural stature, so that there becomes no necessity for an increase of growth, a surplus of means is afforded over the expenditure, which is laid up for the purpose of continuing the species. This critical period in the male is characterized by the appearance of the beard upon the chin and upper lip; by the face becoming longer, and the features more manly; by the voice, which before was shrill, acquiring a deeper tone. At the same time, hair sprouts upon the pubes;—the testicles become evolved, both in their structure, as well as in consequence of the larger quantity of blood determined to the gland for the formation of its proper secretion;—the penis is also observed to grow more rapidly than before;—erratic pains are frequently felt throughout the limbs, more frequently still within the pelvis, and in the body of the testes. A new life seems suddenly entered upon;—new ideas take the place of those formerly entertained in the mind, and the fears of childhood give way to manly fortitude and a contempt of danger. Female society, hitherto disregarded, is now discovered to be enriched with the most alluring charms; and desires, before unknown, rage with a violence requiring much self-command to subdue. These phenomena are first remarked about the sixteenth year.

The female body arrives at maturity in every climate earlier than that of the male, and in this country generally between the fourteenth and the sixteenth year. In women, the first symptoms of the menses principally indicate the arrival of puberty. Changes also take place, and new feelings arise, in some degree similar to those experienced by the male at the same period. The uterine system is more particularly affected, and with it the whole frame sympathizes. The mons veneris and labia externa become evolved, and covered with hair;—the clitoris enlarged;—the vagina both lengthened and widened;—the os uteri more prominent, and altered somewhat as to figure;—the uterus itself considerably increased in size;—the ovaries more fully developed;—the ligaments expanded;—the fallopian tubes elongated, and their fringed extremities more distinct and spreading. In the general system, the pelvis becomes more capacious, and the hips rounder;—the neck more graceful and slender;—the bust fuller;—the breasts considerably plumper, with the nipple redder and more prominent;—the eye more expressive and sparkling;—and the whole form more womanly. The different gestures of the body are performed with a degree of elegance not before noticed;—a sense of bashfulness succeeds to the previous romping character;—childish amusements are discarded;—the imaginative powers are suddenly unfolded;—the conversation bears a more agreeable and lively tone;—personal appearance engrosses much of the attention;—and the wish to please becomes a study.

From the time, indeed, when these indications declare that the epoch of puberty has arrived, and announce the woman in a fit state for the exercise of her sexual functions, the generative system calls into action a new impulse, which controls her whole nature, and impresses her with the most prominent traits of her physical and moral character. From this influence emanate all the strongest female passions—all the most lively affections;—to it may be attributed most of the nervous disorders—the fears—the anxieties—the caprices—the strange admixture of fortitude and dread—the calmness in misfortune, and endurance under suffering—which form such forcible contrasts with the disposition of the man. It is this that "constantly recals the woman to her sex," and stamps her whole existence with so characteristic a distinction. And there can be no question, that after the organs which characterize these amiable and sensitive beings are fully endowed with all their vital energies, woman is constantly subservient to their power, until the period arrives when she is no longer capable of extending the species;—when, having passed through the stages of infancy, childhood, and maturity, she enjoys quietly her individual life, during the remainder of which she is destined to differ comparatively little from the other sex.

Influence on the nervous system.—It is not surprising that derangements and irregularities wait upon a cause of such extensive influence; and we accordingly find that, when the excitability of the organs is more intense than natural, irritation ensues, which is propagated by sympathy to other parts, and thus morbid actions are set up, both locally and generally. This irritation, in an extreme degree, constitutes *furor uterinus;* more frequently, however, the increased susceptibility of the sexual organs does not reach such an extent, but induces an anomalous train of spasmodic and nervous symptoms, constituting what are called *hysterical disorders*, and apparently depending on the artificial and forced state of celibacy. These affections mostly disappear on marriage, which re-establishes the balance of the various functions, by giving its natural employment to an organ whose excessive sensibility had deranged the whole system. Numerous other phenomena may be referred to the same cause; and in those works which treat of the diseases incident to a life of singleness, we are presented with alarming statements. Haller, in his Elements of Physiology, concludes a long catalogue, by observing, that widows in particular are very subject to chlorosis, hysteria, convulsions, mania, and furor uterinus; and he states, that in inspecting the bodies of such subjects, he has found frequently a schirrous or steatomatous state of the uterus and ovarian dropsies. "Quare," he adds, "nisi morum custodia vetuerit, ea mala pleraque, et furor uterinus, et vera mania veneris usu solvuntur."

Premonitory symptoms.—Some peculiar symptoms appear, in most instances, indicative of the first approach of the menstrual period; in many females, indeed, these are scarcely perceptible; in others, they occur in such an inveterate degree as to call imperiously for relief by medicine. In general, they are more severe in the first than during succeeding periods; they are the same as those produced by uterine irritation from every cause, and are what are popularly termed *hysterical affections*. The patient feels herself slightly indisposed, with a little fever and considerable listlessness; she loses her appetite, and is sensible of her health suffering; at the same time the breath becomes more or less fœtid; the eyes dull; the face either pale, with a bluish semicircular mark beneath the lower lid, or flushed and bloated; and pains are frequently felt in the head, either constant or intermitting. These are attended with some pain and fulness of the bosom, with spasmodic pains in the loins and thighs, and a heat and irritation in the external parts and vagina; a degree of relaxation of the genital organs ensues; and a discharge, at first perfectly serous, or very slightly tinged with red, proceeds. Dr. Blundell thinks that the uterine organ itself becomes in some degree increased in bulk during the menstrual action. The discharge need not necessarily be at first coloured; and this circumstance is worthy of attention; for, as

Dewees observes, it will serve to explain those cases of impregnation which are said to have taken place previously to the eruption of the menses. On the first appearance of the discharge all the symptoms are mitigated, and, when well established, entirely cease. The character of the fluid becomes altered, from being perfectly pellucid, to its natural and healthy colour; but it is seldom till three or four periods have passed that the menses recur properly and regularly.

Occasionally unaccompanied by previous symptoms.—Some girls begin to menstruate without any previous pain or indisposition, and before they are aware of the changes necessary to be wrought in their constitution, when they suddenly emerge from the girlish estate to that of womanhood. Such an occurrence is certainly rare; but much unnecessary alarm, which it is well to guard against, may be excited in their minds by the unusual appearance of what is thought blood upon their linen.

Impossibility of the menses continuing during pregnancy.—Such is the general character manifested on the first appearance of the menses; and the discharge, usually preceded by similar symptoms, is destined to recur at certain intervals, except when suspended by pregnancy, suckling, or disease.

It is a popular idea, that some women menstruate during the whole period of utero-gestation; even good physiologists and physicians of discernment have adopted the same erroneous opinion. But such a circumstance is perfectly impossible; for we shall hereafter see, that upon impregnation taking place the uterus becomes lined with a membrane, secreted from its internal surface, which completely closes the orifices of the vessels from which the menses flow. It is certainly true that some pregnant women are subject to occasional attacks of hæmorrhage, both from the uterus and vagina, which may last three or four days. This blood has been mistaken for the menstruous fluid; but it is unlike the menses, inasmuch as it does not return at regular intervals. Although it is impossible for this secretion to continue throughout the whole of pregnancy, the same remark does not hold good with regard to the few early weeks. Dewees observes, he is persuaded that women may menstruate till the end of the fourth month, and he supposes the secretion in such a case proceeds from the cervix uteri, which before that time is not developed. Blundell says, he has repeatedly met with cases in which the catamenia flowed for the first two or three months. Many other practitioners have noticed the same; and I have a patient myself who always menstruates once after having conceived, to her proper time, though very sparingly.

Continuance during lactation.—Some women, as previously observed, are liable to menstruate during suckling, but this must not be considered a mark of strong health; it is a deviation from a natural law, and an irregularity of function. It is almost universally remarked, that the milk of a menstruating nurse is neither nutritious enough, nor supplied in sufficient quantity, for the infant's wants. In selecting a hired wet-nurse, therefore, we should reject a person who "is regular."

Suspension under acute diseases.—Menstruation is mostly suspended under acute fevers and inflammations;—in phthisis pulmonalis and other chronic diseases, where complete exhaustion of all the vital powers precede dissolution, its cessation is one of the worst symptoms we can observe: it almost always indicates that a fatal termination is not very far distant.

Suspension from local causes.—Local diseases, also, of the uterine system, but especially of the ovaries, may produce an interruption. It is worthy of remark, that one ovary may be diseased to a considerable extent, and yet the subject menstruates, and may bear children; but if both these bodies are implicated, menstruation ceases, and barrenness is likewise the result—a fact proving that one healthy ovary alone is sufficient for the purpose of conception.

In some cases of suspension, a vicarious discharge appears either from the nose, ears, anûs, or some other secreting membrane; this discharge is blood, poured out by ruptured vessels, and seems destined to afford relief to a congested part; for it chiefly happens that previously to such an evacuation a sensation of pain or uneasiness is experienced in the particular organ from which the blood proceeds. This is only to be accounted for by some peculiarity of action, and by the sympathy so strongly existing between the uterus and every other part of the body. At the time, also, when the menses ought to appear, ulcers on the surface, which before were dry, have been observed to bleed, or become bedewed with moisture.

Influence of climate on puberty.—There is a great difference observable in the time at which girls, living in distant countries, first become the subject of the menstrual discharge; and this difference depends principally on climate. In Asia and the Indies the age of puberty has arrived before the tenth year; in Lapland and the northern regions, women do not menstruate until on the verge of twenty, and even then in small quantities, and, as Linnæus affirms, only in the summer. In this country, which is considered a temperate climate, the menstrual discharge first appears between the twelfth and the sixteenth year. It is remarkable, also, that those subjects who begin to menstruate early in life, generally cease proportionally early: thus in the eastern nations the discharge has totally subsided by the age of thirty-five.

Mr. Roberton, of Manchester, indeed, in a very excellent and learned paper, lately published, has endeavoured to disprove the idea so universally entertained regarding the early appearance of the menses in the warm, and their late appearance in cold climates. To substantiate his opinion, he quotes Crawfurd's Indian Archipelago, and Raffles's Java, for the first; and Franklin, Lyon, Humboldt, Hearne's Journey to the Northern Ocean, Clarke's Scandinavia, Tooke's Russia, and Lessep's Kamschatka, for the second position. He infers from reference to these authors, that the crisis of female puberty arrives in all countries nearly at the same age. I cannot help thinking, however, that what has gained credence for so many centuries, especially when the question could have been so easily settled, must be based on solid observation, not the result of mere speculation and hypothesis.

Influence of constitution, &c. on the period of puberty.—Besides climate, the early or late appearance of the menses depends much upon the constitution, the mode of life, and the manners of those with whom the girl associates. Young women of a relaxed fibre generally menstruate sooner than those of a more hardy and robust habit. Those leading a city life, partaking of all the indulgences which luxury can afford, and spending the principal part of their time in confined and heated apartments, become more early the subjects of this discharge than others breathing the fresh country air, and in the enjoyment of daily healthy exercise. But the same circumstance is especially to be remarked respecting the morals of those with whom young girls converse: the indulging in lascivious ideas, and associating with women of loose character, seldom fails to cause a more early appearance than would happen to the individual if her companions had been properly selected.

Quantity lost at each period.—The quantity lost at each period has been variously estimated by different authors. Perhaps this discrepancy may be accounted for, partly by its being difficult to collect sufficient of the fluid to give an idea of the general quantity, and partly by the influence of different climates upon the quantity itself. In the tropical regions the discharge is considerably more profuse than in cold climates; and the same circumstances which affect the early or late appearance, regulate also, in some degree, the quantity. It varies much, however, in different women of the same country, and the same woman at different periods; yet a medium average may be given as the most common.

In the Islands of the Archipelago, for example, Hippocrates states that the women lost twenty ounces at each period; in Lapland, Linnæus averages the quantity at half an ounce; in this country it is about five ounces. Thus, then, we perceive there is a gradual diminution in proportion as the country is situated nearer to the north. On this subject Dr. Denman has remarked, that the menses bear some analogy to the productions of the vegetable world, appearing earlier, and being most exuberant, in the warm countries, where vegetation is luxuriant; late and scanty in those whose climate is unpropitious to the ripening of fruits. Thus, also, if a woman live in an atmosphere artificially warmed, the quantity of the secretion is increased: whatever, indeed, is capable of increasing the determination of blood to the uterus, increases the quantity of this secretion.

Interval between the recurrence and the duration of each period.—The interval between the recurrence of the menses, and the time of their duration at each period, is marked by even greater uncertainty than the quantity evacuated. Some women can tell to a day, and almost to an hour, when the discharge will again appear; in others there is a variation of three or four days. In Europe it may be said to return every twenty-eight days, or lunar month, calculating from the commencement of one period to the commencement of the next. It continues flowing generally from three to five days; in some women, however, it ceases in a few hours, while others are subject to it ten days or more. Some women menstruate without any apparent inconvenience through life; others are attacked each period with pains, more or less violent, constituting the disease *dysmenorrhœa*, attended with the most alarming and troublesome hysterical symptoms,

Premature puberty.— Many cases have been recorded of very old women, or very young children, menstruating regularly; but it is now ascertained that such appearances are almost always the consequence of disease, however nearly they may seem to imitate, with respect to time, the regular return of the catamenia. There certainly have been known some rare instances of children beginning to menstruate while very young, the discharge being preceded by hair upon the pubes, by an enlargement of the breasts, and spreading of the hips. These are cases of premature puberty, and are similar to a few which have been observed to occur in the male sex. An instance of such precocity is related in the Transactions of the Medical and Chirurgical Society of London, by Dr. Martin Wall, in the person of a child, aged nine years, who menstruated regularly, from the age of nine months, in whom also all the symptoms which attend puberty were present before she was two years old.

Period at which the menses cease.—As old age approaches, in this country about the forty-eighth year, women cease to menstruate, and are afterwards incapable of bearing children. This is popularly supposed to be a very critical period, and is spoken of as the "turn of life," and in some counties by a very quaint phrase, "the dodging time," from the irregularity both as to the time and quantity which the discharge assumes when about to cease; for it very seldom happens that the menses disappear suddenly; but, before their complete departure, their periods become irregular, and more distant from each other.

In warm countries, and in those instances where the menses appear early, they cease to flow proportionally soon; even in this climate there have occurred cases in which their final cessation happened at the thirty-fifth year; others, again, in which they have continued until sixty; but these are very rare. Bruce has said that in the tropics women only menstruate and bear children during nine years of their life, and that these functions leave them at the age of twenty; and, following the celebrated Montesquieu, he adduces this fact as an argument in favour of polygamy: but, from the best testimony I have been able to collect on the subject, I believe that even in the warmest known regions, females menstruate at least till thirty-five. The inferences, then, to be drawn, as far as regards the period of life during which women are subject to become pregnant, are, that in the temperate climates they may bear children for about thirty-three years; in the tropical, during about twenty-five; and near the frigid zone, are liable to impregnation for twenty-eight or thirty years of their existence.

Uterine disease likely to occur about the period of the cessation of the menses.—However much popular opinion may err in the supposition that any deviation from the natural state of menstruation is a cause of disease, while it is merely a symptom of pre-existing derangement, it is perfectly true that at the time when the menses cease to flow, women are particularly liable to be attacked with those more malignant diseases, which deserve the attention of the medical practitioner, and which induce the individual to call for his assistance. Diseases of the mammæ, enlargement and ulcerations of the uterus, and cancer especially, frequently first shew themselves at this time: and it is a knowledge of this liability, not merely prejudice, that occasions the anxious feelings experienced by all women when verging on this particular age.

Many constitutional derangements also often appear at this crisis, such as indigestion, flatulence, disturbances in the biliary secretion, headaches, and sometimes a purulent or sanguineous discharge from the uterus, with pains in the loins, and many nervous feelings. These generally produce but temporary inconvenience: and it is not reasonable to attribute such, or more dangerous symptoms, to the cessation of this discharge as the cause; but to consider that at this time the uterus and other organs are predisposed, in a higher degree, to take upon themselves those unhealthy actions, which any accidental cause may excite.

Cautions observed during the time of menstruation.—I have before hinted, that women, at the time of menstruation, have some curious prejudices, in which, because they are rather beneficial than hurtful, it is right to indulge them. They are careful of catching cold, of getting wet feet, and great exertion. Some of our northern neighbours carry their caution much farther, and will not take acids, eat fish, or drink red wine, during the time. The medical practitioner must be on his guard not to administer very active medicines, and especially not to perform any surgical operation, while the menses are flowing, provided he has the choice of time; for the system is always more or less disturbed, and any excitement induced may be productive of much inconvenience. Personal cleanliness is strongly to be insisted on; among the higher classes, indeed, this advice is of course unnecessary, and it would be well if it were equally so in every rank of life; for we can easily suppose, from the immediate communication existing between the uterus and the groin, that the inner viscus may be influenced to take upon itself morbid action, by an accumulation of dirt on the external parts.

A favourable period for the reduction of prolapsed uterus.—During the menses the parts are much relaxed, and the natural mucous secretion from the vagina increased, so that an externally prolapsed uterus is more readily reduced at this time than any other.

Source of the discharge.—The source of this discharge is easily discovered: it can only proceed from the vagina or uterus. We know that the uterus furnishes it, from opportunities afforded of dissecting females who have died menstruating. Under such circumstances, the mucous surface of the uterus has been found softer and more villous than usual, studded with numerous red points, from which the fluid might be squeezed in small quantities. During life, also, in cases of procidentia, the secretion has been seen to distil *guttatim* through the os uteri; and Dr. John Clarke observed it actually oozing from the surface of an inverted uterus: so that it can have no other source than the uterine vessels themselves.

It was much litigated what class of vessels furnished this fluid. Ruysch and Cullen declared it to be from the arteries; Vesalius and Haller from the veins; and Simpson from certain specific sinuses.

The menses a specific secretion, and not blood.—In appearance it is dark, resembling, but rather blacker than, venous blood; it is of a faintish smell, and the stains left by it on linen are not difficult to be eradicated. From its resemblance in colour to the vital fluid, many have considered it to be pure blood; some ridiculous theories have been instituted upon this supposition, and it has acquired the name of *menstruous blood.* Even Dr. Denman makes use of this expression. But its resemblance to blood is confined merely to the colour, and it possesses none of the peculiar properties of that fluid. One of the principal attributes of blood is its being capable of spontaneous coagulation, by the separation of the serum from the firmer parts; the menstrual fluid, on the contrary, never coagulates. We have a good opportunity of proving its non-coagulability under the state of imperforate hymen. Many instances of such a malformation are upon record, in which the quantity of the fluid amounted to a gallon or more. I witnessed a case that occurred in this hospital some time ago, in which, on the hymen being punctured, above a gallon of fluid, the accumulated secretions of the uterus and vagina for many years, was collected. It was of a dark, thickish, consistence, but no part of it was solid; it did not possess a putrid odour.

To account for the menstruous blood, as it was called, not coagulating, it has been stated, that if fresh drawn blood be mixed with the secretion from the os uteri, the spontaneous separation does not occur; but we find that in all cases where pure blood is poured out from the open vessels, it coagulates very readily. Clarke says, "the menstruous secretion does not possess the coagulating part of the blood;" whilst Dewees observes, "it has been thought not to possess fibrin, as it does not coagulate; but this is not a certain criterion, as in some kinds of putrid fevers, scurvy, and small-pox, the blood does not coagulate. The blood of those who die from lightning, and blows on the stomach, does not coagulate; therefore, if it were blood, the mere absence of coagulability would not be a proof of the absence of fibrin."

Another property of blood consists in its being acted on by the atmospheric air: even after having been taken from the body, venous blood, if exposed to oxygen gas, acquires on its surface a florid appearance, resembling that fluid when circulating in the arteries; and if a cloth be steeped in blood as it flows from a vein, the colour will be observed to become brighter by degrees. But this is not the case with the menstruous fluid; it retains its dark colour however long exposed. Differing, then, in these two material points, from blood, we must class it among the secretions of the body, and point out those circumstances which incline us to this opinion. These observations, then, will lead us to the consideration of the efficient cause, or theories of menstruation.

Theories as to the proximate cause of the menses.—Almost every age has introduced some fresh speculation on the subject, most of them so absurd as to require no particular mention, even had we sufficient leisure.

Lunar influence.—Aristotle, his descendant Erasistratus—with whom also, among the moderns, we may number Dr. Mead—considered that the menses were governed by lunar influence. Their appearance every twenty-eight days nearly resembling the time taken up by the moon's revolution, and the known fact of the influence of that planet on the tides, with its ideal influence on mania, led the followers of this doctrine to such a supposition. Mead, indeed, was an enthusiast regarding the moon's influence over the body in many diseases. He says it has great power in hydrophobia, and gives several examples of persons bitten by mad dogs having uneasy feelings at the full moon. He knew a young man who brought on spitting of blood by an effort beyond his strength, which during eighteen months regularly returned at the full moon. But the principal argument of these physiologists is, in fact, a strong objection to their theory—viz. the apparent agreement between the moon's revolution and the return of this discharge. The menses, as before stated, ought to occur every twenty-eight days; the moon requires twenty-nine days and a few hours for the completion of her course. Thus we have a difference of more than one day in every month; consequently it must happen that, in less than two years and a half, the same woman would menstruate on every day of the moon's increase and decline. Besides this incongruity, we observe that all women do not menstruate at the same time, as would certainly be the case if the fluids of the body were, as the tides of the ocean, under the dominion of the moon; on the contrary, many of the millions of female inhabitants of this globe are menstruating on every day in the year. We consider, then, these two objections perfectly decisive, and reject *in toto* lunar influence.

Gall, indeed, states, that, when he practised at Vienna, "he soon noticed that during a certain number of days no women menstruated, and in others a great many menstruated at once." As this frequently occurred, it excited his attention, and made him suppose that menstruation followed some definite law; he therefore kept a journal, in which he marked the periods of a considerable number of women for many years. The women of the same class all menstruate within eight days; after this time an interval of ten or twelve follows, in which very few menstruate. At the end of this number of days the period of the second great class commences, all the individuals of which also menstruate within eight days. These remarks are curious, and probably founded on observation, but have not been confirmed by any succeeding physiologist.

General plethora.—The second theory is more plausible, and bears the name of Galen as its chief support; he supposed the cause of this phenomenon to be a general plethora of the body. The arguments brought forward by the followers of this doctrine were, that as the woman is destined to nourish the fœtus, it is necessary that she should have a greater quantity of fluid circulating than the male, and that, when not impregnated, the superabundant blood escapes through the vessels of the uterus. Farther, they say that as the female of the human species does not feel, like other animals, sexual desire at any particular season, but admits the embraces of her husband at all times throughout the year, she must always be in a fit state for conception, and for nourishing the embryon; and that, if this outlet were not established by nature, congestion and inflammation of some of the internal organs would be the consequence of so much superfluous blood circulating through the system. In addition, it is declared that all the symptoms attacking a menstruating woman (especially subjects who menstruate with difficulty), are those of plethora, and that when the discharge from the uterus appears they are all alleviated; that sometimes, also, a vicarious discharge comes on, which removes all the troublesome symptoms, and superseding the necessity of the menses, prevents their recurrence. In refutation of these arguments we may remark, that although in a very small proportion of cases a vicarious discharge certainly does take place, in other patients who do not menstruate normally there is nothing of the kind. Besides, the symptoms which appear, are not, generally speaking, those of plethora, but the very reverse; for it is well known that women who menstruate irregularly are particularly subject to chlorosis, and all the attendant symptoms of debility. A conclusive fact, however, destroying entirely the idea of general plethora, is, that some women, when much emaciated, and others recovering from acute disease, menstruate exactly; nor can we prevent the discharge by bleeding, unless the evacuation be carried to such an extent as to disturb the healthy functions of other organs as well as the uterine. Supposing, then, that a large quantity of blood be drawn just before the time when the menses are next expected, and that the loss sustained does not interrupt the appearance of the discharge, it must be evident that general plethora cannot be considered as the cause.

Local plethora.—The knowledge of these circumstances gave rise to the third theory—that of local plethora of the uterus. The great names of Haller and Cullen are adduced as authorities for adopting this theory. Dr. Cullen reasoned in this way: the growth of the body, he says, depends upon the quantity of circulating fluid distending and elongating the vessels. When the body has arrived at its proper size, a determination of blood is induced towards the uterine system, which is evolved later than the other parts, because its functions are not required until the other organs are perfected. After the genital organs have attained their natural size—when the blood thus determined is no longer required for their increase—a congestion or local plethora is the consequence, for the relief of which a hæmorrhagic effort is established; and by this means the balance of the constitution is restored. This would produce the first appearance of the menses; after a time the uterine system would again become surcharged with blood, and again the same method would be adopted for emptying the vessels. In this way the discharge would return periodically, the force of habit tending very much to produce the regularity of its appearance. But, gentlemen, you will agree with me, I think, in saying, that if this reasoning were correct, nature, that most delicate of all artificers, would have bungled in this instance in a manner unworthy the merest mechanic. To suppose for a moment that any of her arrangements, founded upon principles so just and nicely adapted, could be left by her in this unfinished state, depending only on the force of habit, would be an idea continually open to complete refutation by the most superficial observation of her wonderful contrivances. Besides, if a rupture of the mouths of the uterine arteries were indeed the cause of the menstrual appearances, we should have pure arterial blood poured out, instead of a fluid presenting those peculiarities before noticed.

Haller's idea is still more unsatisfactory than that of our great countryman, Cullen. He appears to have considered that the uterine *veins* became turgid and congested with blood, and that their coats actually gave way and evacuated a part of their contents. Blumenbach refers this phenomenon also to a local plethora.

Another theory ascribes the flowing of the menses to the venereal impulse experienced after the age of puberty. It was supposed that by the agency of this strong stimulus the blood was propelled into the structure of the uterus as it is into the corpus cavernosum penis, by which means a congestion took place, and the blood was squeezed out by the vessels becoming too full. But the structure of the uterus, so far from being similar to that of the corpus cavernosum, is firm and dense; no enlargement of its substance can take place similar to what occurs in the distention of the penis, and therefore the hypothesis is founded on a want of anatomical observation. Abernethy, in his Physiological Lectures, delivered in the College of Surgeons in 1817, says, " Why nature should have doomed the human female to the periodical loss of so much nutriment, and proportionate power, is a problem that can only, in my opinion, be solved by supposing that it relieves uterine irritation, and mitigates the extreme of sexual desire, thus enabling her to conform to the laws of morality and the social compacts that are established between us." However unwelcome this sentiment may appear, as tending to degrade the female character, by rendering the moral feelings completely subservient to physical structure, we cannot deny the plausibility of the doctrine.

You will have perceived that all these hypotheses were founded upon the erroneous idea that the menstrual discharge consists of blood; but as I have shewn you satisfactory reasons for its being considered a secretion, they must all be rejected, even if that circumstance were the only objection that could be urged against them.

Other theories have been adopted at different times, the explanation of which does not necessarily depend upon the presumption that the fluid evacuated is pure blood.

Fermentation within the uterus.—At the first dawn of chemical science, when every natural action, either of the animate or inanimate world, was referred to and explained upon the principles of chemistry, at that time so little understood and so frequently misrepresented, the appearance of the menses was said to have its origin in a peculiar fermentation, taking place within the uterus. It is not easy to understand what analogy could be drawn between the act of menstruation and the process of fermenting liquids; but chemical discovery was the rage and fashion of the day, and because it was known that a *tertium quid* was formed by allowing particular substances to undergo the vinous or acetous fermentation, the same agent was declared to be the efficient cause of menstruation. This supposition, as well as Dr. Freind's idea of mechanical plethora, requires no refutation; it is so strongly stamped by absurdity, that it would be a waste of words to endeavour to overthrow it.

The last theory which I shall mention is the one at present followed—viz. that it is a secreted fluid, as completely under the laws of secretion as the bile, urine, or any other. I believe we are indebted for this simple view either to Dr. or Mr. John Hunter. It is uncertain who first suggested the idea that the menstruous discharge was a secretion; the credit of it has been given to Bordeu, Hunter, and Saunders. The arguments in its favour are numerous. In the first place, the vessels run throughout the uterus in a tortuous or spiral manner, similar to the arrangement of the vessels in all secreting organs. The uterus, indeed, is furnished with a secreting membrane which lines the whole cavity; but I am not inclined to believe that the same surface which affords the mucus lubricating the part secretes also the menstrual fluid: it is more reasonable to suppose that there is a complete set of vessels circulating through the uterus, as through a gland, which furnish at stated times the menses. Again: the fluid is certainly not blood; and in some animals there is a peculiar fluid secreted at the time when they are in heat, not indeed resembling, in external appearance or chemical properties, the menstrual discharge, but proving that a disposition exists even in them for the formation of a different and more copious secretion at particular periods. In many cases, also, of difficult and painful menstruation, a complete membrane is formed within the uterus, and comes away as the menses flow: this, if we reason from analogy, must be secreted, and forms a strong argument in favour of this doctrine.

This theory, however, has met with many opponents. It has been said, that the difference observed between the fluids secreted in the uteri of other animals and that furnished by the human uterus, is an objection. It has been objected to on account of the colour, because no other secretion of the body is like it; but I would ask, are there two glands of different structures in the system which secrete a similar fluid? Why is the bile of that particular colour and flavour? Why is the urine often limpid? How can we account for the blandness and nutritive qualities of the milk? The only answer which we can return, is, that nature has so ordered it that every secreting organ should furnish such a fluid as is requisite for the different purposes it is designed to fulfil in the great mechanism of the animal economy. It certainly does happen, occasionally, that a woman voids pure blood at the time of menstruation, together with the proper discharge; but this is always a symptom of disease, and is never met with in instances where the function is performed in a proper and healthy manner. It generally accompanies menorrhagia. The periodical return of the catamenia is not more astonishing than many other phenomena occurring in the living body; for instance, the regular accession of a tertian or quartan ague. It is instituted by nature doubtless for a wise purpose, and governed by steady though inexplicable laws.

Use of menstruation.—The final cause or intention of menstruation has given rise to much controversy. As its presence and regular recurrence is the surest test of uterine health, so its intention appears to be to preserve the uterus in a state fit for conception. That this is the use of the discharge is almost proved to demonstration, by the known fact that women who are unable to menstruate scarcely ever conceive, and that those who menstruate with difficulty are also rarely pregnant. The analogy drawn from other animals also holds good here; for the mucous discharge from their uteri proves that they are in a state favourable to the propagation of their species, and the menstruous secretion is a proof of the same in women. Most other animals experience a desire for procreation only at particular seasons; and it is so ordered that the offspring should be produced at those times best adapted for rearing them: but in woman, as this discharge appears every month, proving her in a fit state for conception taking place, the power of generation continues throughout the year.

We cannot but be impressed with the providence of nature, when she formed women only capable of conceiving during those years of their life while they are subject to the menses; for as this evacuation never happens except at that period when the system is in its greatest vigour, there is always power to afford a sufficiency of nourishment to the infant, and the mother herself is perfectly able to administer those little offices which every being, until it arrives at a certain age, requires. Unless this had been the case, children themselves would have become mothers, and women sinking into the grave would have borne children at a time when they could neither afford their offspring nourishment nor attention.

Before the adoption of this theory of secretion, it was supposed that there was always circulating through the uterus more blood than was sufficient for the nourishment of that viscus, and that the superabundant quantity was for the purpose of affording pabulum to the new being after conception had taken place. Menstruation, then, was considered to have been established with the view of supplying the fœtus with the means of life and increase. Surely, if this were the case, since the fœtus is comparatively so small during the first weeks of gestation, there must either be too much nourishment provided in the early stages, or too little in the advanced state. Had there been a gradual diminution in the quantity of menstrual fluid as gestation proceeded, an argument might have been raised in favour of such a supposition; but in conformity to the facts before us, we are bound to discard it.

The most ancient, and perhaps the most universally received theory, respecting the intention of this periodical discharge, was that derived from the Arabian and Greek physicians—viz. that it was instituted with the view of carrying off some noxious humours which would be highly injurious if allowed to remain within the system. The laws laid down by Moses, to govern the conduct of a woman under menstruation, are particularly precise and strong: he ordains that she should be accounted unclean for seven days, and has also denounced the same judgment against a man cohabiting with a menstruating woman. There can be little question that the strict regulations regarding ablution, met with so constantly in the writings of the inspired Jewish legislator, owned a political rather than a moral origin. It is a natural consequence of his divine authority, that his commands should be scrupulously obeyed by the people; that other nations who held intercourse with the Jews should be led by degrees to follow many of the usages enforced by a personage so highly venerated; and that custom should have added her strong arm in rivetting still more closely those manners which had been previously formed. On the principle, then, of personal cleanliness being so essentially necessary at the time of menstruation, it was assumed that the fluid was of a malignant character, and that its purpose was to free the body from a quantity of injurious humours, which there was a natural inclination in the vessels to generate. To such an extent, indeed, even in comparatively late times, was the opinion regarding the malignancy of this evacuation carried, that the presence of a menstruating woman was firmly believed to produce a blight on vegetation, and abortion, if a pregnant female happened to approach her. In Pliny, she is described as being eminently pernicious—blighting fruit, destroying grafts and hives of bees, drying up fields of corn, causing iron and copper to rust and smell, driving dogs mad, and disgusting even ants with their food. De

Graaf has a very strong sentiment on this subject:—"Penis cum menstruata concumbentis excoriatur; si novella vitis eo tangatur in perpetuum læditur, steriles fiunt tactæ fruges; moriuntur insita, exuruntur hortorum germina; si mulier pregnans alterius menstrua supergrediatur, aut illis circumlinatur abortum facit; ei autem quæ uterum non gestat concipiendi spem adimit; vapor ab ore specula atque eboris nitorem obscurat; gustatus hic sanguis canes in rabiem agit, homines vero diris cruciatibus affligit, commitialem morbum, pilorum effluvium, aliaque elephantiosorum vitia."

The doctrines advocated by the great Boerhaave tended also to keep up this delusion; but we are now perfectly convinced, not only that the fluid itself is of a most harmless and inoffensive nature, but that the baneful effects attributed to it are founded upon errors growing out of a deep-rooted superstition. By being allowed, indeed, to remain stagnant and putrefy, this, as well as every other secretion, may become offensive, and even acrimonious; and these changes are more quickly produced in the warm than in colder regions. We cannot, therefore, too much admire the intentions with which cleanliness was so strongly commanded by the high authorities of the Jewish nation; nor too much despise the superstitious feelings of those people in giving laws to whom it was necessary to adduce the dazzling mystery of a religious precept before attendance upon the commonest duties of life could be enforced.

I may observe that in Europe, instead of the menstruating woman secluding herself and being shunned as a pest producing destruction to vegetation, and contaminating every person with whom she holds the slightest intercourse, she mixes with society as usual, and no alteration whatever can be perceived by a casual observer, either in her manner or appearance.

Concluding summary.—In conclusion, we will repeat a few of the leading facts connected with this singular discharge. First, it is confined to the females of the human species. Secondly, it is a secretion proceeding from the uterus. Thirdly, it appears every 28 days, unless interrupted by pregnancy, suckling, or disease, from about the 15th to the 48th year. Fourthly, it is for the purpose of preserving the uterus in a state fit for the reception of the impregnated ovum. And lastly, it is perfectly bland and harmless in its nature; and, unless when changed by putrefaction, by no means possessing those hurtful qualities so industriously heaped upon it by the Arabian and Greek physicians.

ON DENTITION;

WITH AN

ATTEMPT TO EXHIBIT THE OCCASIONAL PRESENCE OF CERTAIN DISEASED CONDITIONS OF THE BODY,

As connected with its Irregular States.

By Dr. Ashburner.

[Continued from page 189.]

The preliminary inquiries relating to the course of events constituting normal dentition have been gone through; and if the meaning of the investigation have not been clearly expressed, the ulterior objects of our inquiry will be ill understood. Have we determined the standard of normal growth about the teeth and jaws? We have as yet, in our efforts to arrive at a severe definition, approximated only to the object of our desires; and it is feared that the approximation, such as it is, may be still wide of the truth*.

As far as we know of normal periods, they have been defined. We have then to ask, What are the *inconveniences* resulting from anormal trains of growth in the teeth and jaws? The question has two sides; the one relating to the local inconveniences; the other to those which arise in the frame generally. The division is artificial and unphilosophical; but it is adopted because it answers our purpose, for the sake of limiting the extent of our observations.

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* In reference to the criticism of a General Practitioner, in the last Number of the Medical Gazette, on the *attempt* I have made at an *approximation towards the normal order* of the eruption of the first set of teeth, I must remark that my courteous critic and I are, *in limine*, disagreed upon the meaning of the term *normal*. I feel obliged to him for having published Sir Richard Croft's table: but a little reflection upon the considerations in the first part of my article would have convinced him that the given order cannot be *normal*; and a little more reflection would have shewn him that his own sphere of observation is not generally among *perfectly healthy* children, and that the chances are against his having taken the pains to select a few out of his fifty observed cases, in which he could have been sure that the developments had proceeded without pain, or other inconvenience. In the meantime, there is some use in recording the fact, that in civilized society, as at present constituted, there is a frequent repetition of one order of eruption, opposed though it may be to anatomical norma;—that there are certain laws, producing the frequent recurrence of a given aberrant series of developmental trains, allowed by the General Practitioner to vary occasionally. I have, in the first part, purposely avoided the history of anormal eruption, in the hope that the exhibition of the importance of the subject might induce other men to study developments as I have done, and to record anormalities. The General Practitioner, not having reflected upon the laws regulating aberrant series, has little idea of the extensive considerations they involve.

We see very few persons who have not suffered more or less severely in the mouth, from the local consequences of anormal dentition. It would be very trite to speak of the common occurrence of tooth-ache; yet the subject of the influence of anormal growth in the production of diseases of the mouth, has been very little investigated. It is generally acknowledged as a fact, that children suffer more or less during the progress of dentition; and that very few adults are seen with a perfectly normal condition of the mouth; indeed, so rare is the occurrence of a normal state of the teeth, that the beauty of a fine set of teeth is a striking object of admiration. The local inconveniences resulting from anormal trains of growth in the teeth and jaws are not few. The surgeon is already well acquainted with this part of our subject. Among them may be enumerated those congenital defects more or less allied to the fissure we know as hare-lip: irregularity in the curved alignement of the teeth; decayed teeth; other diseased states of the teeth; inflammations, abscesses, and tumors, resulting from these, or from irritations in the course of growth to the jaw bones, muscular, cellular, and glandular tissues of these parts. The mouth, the throat, the nostrils, the palate, and all the neighbouring parts, have disease inflicted upon them occasionally, by anormal conditions of the teeth and jaws. This is too well known to require observation just now; our present pursuit is the investigation of the other side of the question, that which relates to the coincidence of disease in other parts of the frame with normal states of dentition.

If we wish fully to reply to the question, What are the coincidences of disease in other parts of the frame with anormal dentition? we must have a knowledge of the very various tendencies which may exist in different parts of the frame in alliance with the tendencies about the teeth and jaws, and even of the *slight degrees* of erroneous action in the system, resulting from irritation to the skin or to other villous textures, parts of the dermoid systems, and of the influence exerted by these upon the nervous system. Looking extensively upon the subject of developments of various organs of the body, we should inquire into the coincidences of anormal structure in these with anormal configuration in the parts which form the more immediate subject of our inquiry, and we shall often find that anormal developments in one part of the body are linked with errors in other parts. We may find too, that where error exists, the degree of it may not be very serious; or, on the other hand, according to a gradation of circumstances, the accruing mischief may entail consequences of vast importance. If the subject be regarded in this manner, the anormalities attendant upon dentition will be found not to be confined to the period of childhood. A review must be taken of the symptoms of disease to which children are liable in the progress of their growth; and the state of knowledge up to the present time being assumed to be given in the latest works, which, by common consent, are allowed to be authorities, we must proceed to the analysis of these symptoms.

It will be found that most of the complaints of children can be grouped into one family; that they can be classed under one general head; and that, for the most part, they form the symptoms of one disease, the existence of which depends upon irregularity—upon *anormality* of growth. It is not intended to confound the specific diseases arising from contagion, with the symptoms of irritation arising in the progress of faulty growth. How much soever the pathology of one train of evils in the system may elucidate other trains, care must be taken not to trench much upon inquiries too far wide of our present subject.

Most of the complaints afflicting children are referrible to cerebral or nervous irritation, the various symptoms of which are parts of the disease called hydrocephalus acutus, or water in the head. The manifestations of irritated nervous centre, constituting this morbid state, it is proposed to consider, as our illustrations may permit, separately. The start in sleep; the moaning in sleep; the shivering fit; the slight thrill, hardly a rigor; the flush of countenance; drowsiness; perspiration; neuralgia; spasmodic twitchings of certain muscles; continued spasms of certain muscles; squinting; wry neck; locked lower jaw; spasmodic croup; intus-susception; chorea; epilepsy; catalepsy, and its minor degrees, appalment, forgetfulness, nervousness, and stammering; tetanus and coma; diarrhœa and costiveness; deafness; and amaurotic blindness, are parts of hydrocephalus. What is the object in regarding these in their disintegrated state? To show that either in a *slighter* or a *severer* degree, each one or more of these conditions of irritated nervous centre may be coincident with anormal dentition.

This is a new mode of regarding the acute water in the head; but are these the only views that offer themselves from the point of aspect we have chosen? We know that the skin and its appendages, and the mucous or villous surfaces of the body, are closely knit together in the analogies which they offer; and that irritations to the nerves connected with one part of these systems, are curiously responded to by disordered conditions of some other part. There is a medium through which the message is made to travel. The nerves proceeding from the mucous surfaces of the intestines take their course to the brain, where they are intimately associated with nerves arriving from either some part or parts of the skin.

In the diseases which appear to result from the local changes consequent upon the inoculation of a morbific fluid upon the skin, the connexion between the constitutional signs and the local change of structure, is still very obscure. I tried to investigate this subject fourteen years ago, when I was physician to the Hospital for the Small-pox. Endeavouring constantly to look in the direction of anatomy, I established some new points. (See a paper in the 27th No. of the Medical Gazette, vol. ii.) It being an object to discover the specific change of organization in the skin which is the antecedent or coincident to certain trains of cerebral irritation, my researches on the anatomy of the variolous pock have carried on the investigation one step.

In variolous diseases, in hydrophobia, in syphilis, and in some other conditions of irritation or poison applied to the villous part of the skin, there would appear to be a process carried on under the direction of certain laws, which would seem to imply a connexion of an intimate nature between the dermoid organs and the nervous centre—an alliance vaguely and loosely expressed by the use of the word sympathy. Dr. John Clarke well observes (Commentaries on some of the most Important Diseases of Children, pp. 96, 97), that "all the arguments founded on the doctrine of sympathy and irritability are drawn *ab ignoto;* and it seems much more conformable to reason and observation to infer, that such * * * affections arise from *some derangement of organization, however temporary*, than to resort for an explanation of them to imaginary causes, and such as offer to the mind no satisfactory conclusions."

The fact is, that certain states of the dermoid system, and certain states of the nervous system, are coincident; or that the one immediately precedes the other. The coincident or antecedent, and consequent events, may vary according to the peculiarities in the structure of the individual, which it has been usual to express by the terms temperament and idiosyncrasy; or they may vary according to the condition in which the individual, or parts of the system, may happen to be at the time. Taking the subject of dentition, and the relations of its anormal states, parts only, be it remembered, of the development of the whole organism, as the topic of our inquiry—seeing the manner in which the complicated organizations of the capsules, teeth, and jaws, are related to each other, and connected by the medium of the fifth pair of nerves with the brain—seeing some reason from the anatomy to class the teeth with the dermoid systems, and seeing analogous phenomena exhibited by disordered conditions of these parts and of those systems, we are left to trace the circumstances that can fairly be classed together. If, in the progress of our investigation, we can perceive that offences against the healthy integrity of the dermoid systems are responded to by the occurrence of events analogous to those which are coincident with pressure, or other minor mischief, to the nerves connected with the dental pulps, we shall have additional reasons for arranging the teeth according to the classification of some of the great comparative anatomists.

Taking this view of the subject, we shall be enabled to understand how, besides the infantile remittent fever, and the acute water in the head, or their individual symptoms, various diseases of the skin may be coincident with anormal dentition, or vicarious with the diseased states to which allusion has been made. The field thus opened up for investigation is very extensive; and when we consider the limited range offered by confining the attention to the anormal development of one set of organs only, we shall be tempted to examine the relations of these to that of other parts, and thus wander into regions that, to the unreflective, would appear to have no connexion with our subject.

In treating of the disorders coincident with anormal development, it is proposed to detail events as they have offered themselves to my own mind—to endeavour to connect some of these events in natural trains; and where the link between coincident parts of a chain can be exhibited, an attempt may be hazarded at an hypothesis. In this there can be no unphilosophical presumption. The hasty and eager desire which superficial thinkers display, to account for obscurities in coincident phenomena, ought to teach caution to those who are engaged in the search after truth; and perhaps it ought to teach resignation under misrepresentation. It is much to be feared that the strong motives to silly sneering which public life places before those engaged in professions, blind them while they travel in the path of science, and not only induce a haziness in their own intellects, but lead to a desire in them to misrepresent the views of others. Truth has a most excellent test in time; and if the observations which have been already made shall not accord with the careful and vigilant notice of the same trains of events by others, fallacies will be detected, and past imaginings will meet with the neglect which erroneous statements acquire. If the proposition had at any time been put forth, that anormal states of dentition were invariably and immediately the *causes* of serious disorders of health, a doctrine would have been advanced which the experience of most medical men would have enabled them to subvert at once. The country practitioner more especially would instantly put his negative upon the assertion; for in his experience, unless the district in which he practises be a marshy country, or have circumstances about it depressive of the vital forces, anormalities in development are, for the most part, compensated by the energy which a pure and invigorating atmosphere communicates to the nervous system. In the country, obstacles to the normal progress of growth in the teeth and jaws, may, and occasionally do, intervene; but the forces of the constitution are in most cases sufficient to overcome the inconveniences resulting from them. In London, and in large towns, it is different; errors in the progress of growth communicate their influence to various organs; and according to the tendencies of the constitution, according to the *idiosyncrasies* of the individual, or according to the condition in which surrounding circumstances may have for the time placed him, the mischief, which may vary certainly in degree, is felt in one set of organs or in another. Unless much more were known of the precise coincidence which a certain anormality may require—of the precise trains of symptoms indicating certain erroneous trains of growth—it would be impossible to point out the diseased states and irregular developments that are linked with each other.

We are not aware fully of the coincident events connected with development, which take place in the earlier periods of infancy—a time of life when the mobility of the frame, and the rapidity of change in the course of growth, render their consequences so striking. In pointing out, therefore, the links in the chains of diseases which hang on irregularities in the course of development, the most that can at present be attempted is to trace analogies; and even in this task, the complications that beset every event in the animal economy may tend to confound us, and to lead us wide of the direct line of our inquiry.

Regarding the infant, we ask if coincidences of disease with anormal dentition can fairly be traced before the usual period of cutting the teeth? Superficial observers have a fashion of scouting ideas inconsistent with the notions they have imbibed from their masters. We know well that children, at very early periods after birth, are the subjects of convulsions. Irritations upon the skin may be vicarious with these epileptic attacks, or irritations upon the mucous part of the alimentary canal may affect the nervous centre. Why may not a turgid state of vessels about the dental matrices, in the simpler and less complete conditions of organization belonging to this period of life, immediately compress the dental, or even the maxillary nerves? The subject of convulsions in earlier infancy is yet involved in considerable obscurity, and if we shall at a future time see reason to approach the conclusion, that pressure applied under certain conditions to a nervous tendril of a motor portion of the fifth pair is nearly tantamount to pressure applied to certain parts of the brain, we may well believe that irregularities in the course of growth at the earlier periods of infant life may produce pressure that shall be succeeded by convulsions. Perhaps pressure or other irritation, applied to a sensitive nerve, may be succeeded by tic douloureux, or a slighter neuralgia.

A fine healthy-looking child of a strong Irish woman died at thirteen weeks of age, of a convulsion fit. My suspicions as to its having had improper food were not well founded. The mother was anxious to have the cause of death ascertained, and I found no difficulty in obtaining leave to open the body. The organs for the most part were healthy; the stomach contained only a little milk; no error upon the mucous surfaces of the intestines. Skin perfectly healthy. The contents of the thorax, as well as those of the abdomen, were quite healthy. In the head there was a slightly injected state of the vessels of the pia mater, but in other respects the brain was quite healthy. The capsules of the incisor teeth were large and very vascular, much more advanced than usual. With a lancet the cartilaginous rim of the lower jaw was attempted to be removed, with a view of exposing the capsules of the molar teeth; but these were so unusually distended with fluid, that the instrument cut into them and let it out. This was an example of development proceeding too hastily.

Convulsions frequently occur in coincidence with a development which is too hasty in its progress. They arise from the same state of nervous system which, under a less severe degree of irritation, is productive of partial spasm. Pressure on a nervous tendril supplying a dental capsule is, perhaps, at first attended by twitchings of only the flexor muscles of the hand and arm; then of the muscles about the angle of the mouth, cheek, and eye-lids; then, may be, the parietes of the abdomen harden. The associations of nerves all over the body are so extensive, that it would be difficult to say what set of irritated nerves may induce general convulsions. An irritated portion of the mucous surface of the colon may be coincident with spasm of the calf of the leg, or of the abductor of the great toe. They who are accustomed to visit the lying-in chamber, know that women in labour often suffer from severe spasms in the legs, coincident with irritation about the neck of the womb. The persons who have suffered from these cramps, may perhaps have no further irritation in the nervous system. The nerves only, whose functions relate to these parts and to those in their district, may have been irritated. The mischief is restricted to a part. All the nerves, those productive of more general symptoms or convulsions, may not be affected. It is clear they are not in every case necessarily affected; but they may become affected; for spasms of particular parts are in many cases forerunners of convulsions. The degree of spasm being at first slight, is afterwards aggravated, and, neighbouring nerves being associated, is produced into the most severe form. Dr. John Clarke (Commentaries, &c. pp. 88, 89), writing with great practical sagacity on these subjects, has said, "A bending of the toes downwards, clenching of the fists, and insertion of the thumbs into the palm of the hands, and bending the fingers upon them, is sometimes found not only during the paroxysms, but at other times.

"Clenching the fist, with the thumb inserted into the palm of the hand, often exists for a long time in children, without being much observed; yet it is always to be considered as an unfavourable symptom, and frequently is a forerunner of convulsive disorders, being itself a spasmodic affection.

"It rarely happens that a child recovers from an attack of this sort, unless the progress of the disorder has been interrupted by a timely application of proper remedies, without a general convulsion."

I attended a fine boy from the cutting of its first incisor tooth to the completion of its dentition of twenty teeth. It was the last child of a family in which all the children had afforded examples of anormal dentition. This boy was of a nervous temperament, with black hair and eyes. Every tooth had come forward with a want of biliary secretion. Nothing could exceed the care observed by the watchful mother, as to the diet of this infant; yet, whenever an effort at developing a tooth took

place, she was always aware, from the deficiency of bile in the evacuations, that he was to have slight fever, sometimes with a catarrh and cough, always with twitchings of the face and fingers, and starting and moaning during
and a catch in fetching a deep
With the appearance of the four first molares the spasms were more severe. The thumb of the right hand was thrust into the palm, and the fingers clenched upon it; the toes were drawn down; the face was distorted. These spasms relaxed and reappeared. I found, on these occasions, that the tooth was always anormal in its progress; seldom observing its turn, and never its time. The gum-lancet freely used always cured these spasms. On the last occasion, I was sent for in great haste, for the spasms had been continued into an epileptic fit; from which I speedily and effectually relieved my little patient by cutting through the capsule of the coming tooth.

I was called one evening to the child of a lady in Regent-Street. It was a fine girl of fourteen months of age. The head was large; dark hair; dark eyes. It was in a tub of warm water, quite insensible, passing from the state of epilepsy into tetanus. Its eyes were not influenced by light; the pupils remained dilated. The anterior molaris of the left side, in the upper jaw, was ready to come through. I cut freely through its capsule with my gum-lancet; in two minutes the child was on its knees in the water, playing with the handle of the tub, in excellent spirits. This child had been twitching the angle of its mouth, and had had its right arm spasmodically affected, during the day.

To enumerate cases like these would be not at all difficult. No practitioner, conversant with the disorders of infants, will deny that, while the teeth are troubling them, they are apt to be convulsed. (See Hurlock on Dentition, Introd. Pref. p. xix.)

Although convulsions, or epilepsy, be not so common during the progress of second dentition as they are in the earlier development, yet many cases occur in which their presence may be attributed to pressure, opposing the progress of growth, and thus irritating certain nerves.

A boy, twelve years of age, was cutting the second or posterior permanent molares of the upper jaw, before those of the lower, and the process was accompanied by twitchings of various parts of the body. At last he became affected with chorea. Being a very nervous lad, if any notice were taken of him, he would quite involuntarily make the most extraordinary faces, and contort his body into various attitudes that appeared to be most difficult and painful. This chorea continued for three months, during which time a variety of medicines were swallowed. At last he fell into an epileptic fit, struggling much, foaming at the mouth, and grinding the teeth. I thrust my fore-finger along the inside of his cheek, and found a hard cartilaginous space on each side, behind his first molar teeth. I succeeded in gashing these parts: he uttered a scream, and fell out of his fit, becoming quite sensible; nor had he a recurrence of his chorea.

A young gentleman, twelve years of age, with dark hair and eyes, greasy countenance, lymphatically stout, was removed from school, and sent to some relations in the country on account of being attacked by chorea. His bowels were costive; he had offensive breath; he started and moaned in his sleep. Something unpleasant to his feelings occurred in conversation, and he fell into an epileptic fit. On recovering, he was placed in bed, where he slept soundly for two hours, and on awaking was perfectly unconscious of having had a fit. During the next fourteen months, this boy had many recurrences of his fits, and though much medicine was swallowed, nobody thought of the probability of his cutting teeth. In shewing me the young man at eighteen, his father said he had had no fits for four years: he supposed he had "*outgrown*" them,—a truth spoken without reference to my hypotheses.

A lady, with dark hair and eyes, tall and handsome, of a highly nervous temperament, married at the age of nineteen; and was pregnant of her first child about eight months, when she was seized with an epileptic fit. She had for several months been affected with twitchings in her cheeks, and "live blood" was often very troublesome in her left eye. The epilepsy recurred twice before her labour, which was a very favourable one; and she had a very good getting up. She nursed her child, which throve very well. At the end of seven months from her delivery, twitchings came on again, and she had at last another epileptic fit. They came on now twice, sometimes three times, in the week. The best physicians—some of the best surgeons—were consulted. The digestive organs were attended to, and she took various medicines. The fits came on at longer intervals; then, sometimes, two appeared in a day. I saw her first when she was twenty-two years of age. I was expressly told that she was placed under my care, with no hope of her recovery, but merely that I might look to the general regulation of her health. My first office was that of consulting-dentist, for I gave her an opinion upon her teeth, which was to the effect of condemning her to lose seven decayed molares. One of these was the only wise tooth she had cut. Three other hard cartilaginous obstacles to the progress of her teeth were removed, and this lady has had several years of freedom from epilepsy.

A young woman, nineteen years of age, of light hair and fair complexion, of fine tall figure, rather fat, was, in the year 1818, apprentice in a straw-bonnet shop, in Hayes's-court. Her occupation was sedentary, and she had not been in the habit of paying attention to the state of her bowels: they were suffered to be very costive. For several months she had perspired profusely at night, and her breath had been observed to be very offensive; she started in her sleep, and had repeatedly awakened her bed-fellow by kicking her on these occasions. She moaned and talked in her sleep. Dr. Nuttall, who was my colleague at the Westminster General Dispensary, was suddenly called to her, on account of her having fallen into a fit. He caused her to be profusely bled, and she recovered so far as to be able to see her physician at the dispensary. Three weeks afterwards, the doctor being from home, I was obliged to see this patient in a fit similar to the first she had had. I learned that she had been very odd and nervous in her manner, and had often suddenly screamed out from cramps seizing her toes and the calves of her legs, which were succeeded by her thumb being drawn in towards the palm of her hand, and her fingers being clenched upon it. I found her in a state of tetanus. The convulsion was over. I thrust my fore-finger into her mouth, where I found the wise teeth of the upper jaw through. In the lower jaw the teeth could not get through, for there were hard cartilaginous substances in their way; through these I scored freely, and the young woman was relieved instantly.

I was called last year to Upper Marylebone-street, in the night, to see the daughter of a very honest and independent tradesman. She had been attended for the fit in which I saw her by two medical friends. The parent's anxiety made him apply to me. The patient was a fine young woman, of nineteen, with dark hair and eyes. She was stiffly curved in tetanus. I asked her sister if she knew whether any wise teeth had lately been cut. Upon her answering in the affirmative, I took a gum lancet, and relieved my patient instantly, by cutting through the obstacle to the progress of her wise tooth, in the right side of the lower jaw.

[To be continued]

HOOPING-COUGH CURED BY VACCINATION.

To the Editor of the Medical Gazette.

SIR,

A FEW notices of this subject, and a few cases of this kind, have been published, exclusively, as far as I know, in your journal, vols. vii., viii., and xii The influence of the vaccine virus, however, upon hooping-cough, does not seem to have been noticed in any systematic or elementary work. It is not even adverted to in the very recently-published article on hooping-cough, in the Cyclopædia of Practical Medicine. I have lately met with a case very decidedly confirmatory of the power of the vaccine virus in checking the progress of this disease; and through your journal, sir, I beg to add it to the stock of facts already before the profession, in hopes that the remedial powers of the virus may speedily be amply confirmed, and the utility and safety of this practice established. In a family of two children, the elder had hooping-cough for several weeks before the younger had any cough. In about ten days after the commencement of the cough, the hoop was evident in the latter. On the third day afterwards, I vaccinated this child. Before the fourth day, the fits of coughing, which had previously been prolonged to four or five minutes, were so much abated as to continue less than one minute. By the time the cow-pock vesicle had attained its acmé, the hoop had completely disappeared. The elder child continued to cough, *with the hoop*, for a period of several weeks after it had disappeared in the younger.

It was at one time supposed, that in order that vaccination should have this peculiar influence upon the progress of hooping-cough, the introduction of the virus should take place in the third week after the commencement of the hoop *. The cases which have been published, particularly those by Mr. Chevalier, in the 12th vol. of the Medical Gazette, seem to prove that, at whatever period of the disease vaccination shall take place, the effects are uniformly the same. For instance, in Mr. C.'s *first* case, the child was vaccinated three or four days after the formation of the hoop, and cured completely within the week. In his *second* case, the disease had lasted upwards of two months. The child was at this late period vaccinated, and the cough had disappeared by the eighth day. The *third* case had laboured under the disease for *four* months. This child ceased to hoop as the cow-pock vesicle attained its acmé. It seems, then, to be ascertained, as one of the laws affecting this power of the vaccine virus, that it is immaterial at what period of the hooping-cough the introduction of the virus takes place; the arresting influence being displayed equally at all periods of the disease.

It may become, to one desirous of employing this mode of checking the progress of hooping-cough, a question of doubt and anxiety whether the influence of the vaccine virus, in protecting against small-pox, may not be deteriorated or destroyed by its insertion during the presence of hooping-cough. The vesicle, at the time, proceeds as normally and regularly as if no disease were present, and no hitherto published cases yield the smallest grounds for a presumption that its protective power is diminished, or in any way affected. I would be disposed, therefore, to hold it almost completely established that the protective power of the vaccine virus suffers no deterioration or diminution by its insertion during the progress of hooping-cough.

We are not in possession of sufficient *data* to determine whether the child in whom hooping-cough has been by this method arrested, is equally protected against a return of it, as he would have been had the disease been allowed to run its course.

What application and use will be made of this discovery, supposing it incontesitbly established, and also generally known? Some will hesitate to postpone the vaccination of the child, while, I doubt not, many will be inclined to advocate its postponement until the occurrence of hooping-cough, in circumstances where there are no rational grounds for dreading the risk of the infection of small-pox. To what results it may lead, we cannot foretel: meantime, we should ascertain the laws of its operation, and in a few years *nous verrons*.

Your obedient servant,
THOMAS ADAM.

Banhead, Oct. 23, 1833.

FURTHER REMARKS, BY MR. KEY,
ON
MR. GUTHRIE'S WORK ON HERNIA, AND "HIS REPLY."

To the Editor of the Medical Gazette.

SIR,

MR. GUTHRIE, as I anticipated, has made a very ingenious and a very lengthy reply in defence of his opinions, and of his claims to original discovery, in the anatomy of hernia. He has not absolutely evaded entering upon the charges brought against him, but has so dexterously turned his weapons of retort against me, that I think it necessary once more distinctly point out the sum and substance of the complaints which, as editor of Sir A. C.'s work on Hernia, I have brought against him, and if possible, to winnow the chaff in his "reply" from that which really applies to the question *sub judice*.

I make three charges against him, and substantiate them by the following proofs. First, that he has placed himself, and the profession whom he addresses, in a false position, by assuming that, "according to the prevailing opinion of modern surgeons, the parts through which an inguinal hernia passes or proceeds, have little or nothing to do with the causes of strangulation." Secondly, that he has claimed the muscular structure of the inguinal canal, in reference to the upper abdominal aperture, as his own discovery, when such a structure had been previously described by Sir Astley Cooper, and its especial reference to hernia had been clearly pointed out by him. Thirdly, that he does not understand Sir A. C.'s description and dissections of the parts of hernia, and therefore underrates our knowledge of the subject, by which he gives greater weight, and an air of originality, to his own descriptions.

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* See Dr. A. T. Thomson's Lecture, Lond. Med. Gaz. vol. vii. p. 807.

Charge 1.—The following are my proofs that the action of muscular fibres, in causing strangulation of a hernia at the internal ring, is familiar to the profession, and had been demonstrated by Sir A. C. long before Mr. Guthrie wrote or lectured on the subject.

Having described the internal ring, in his large work on Hernia, and the transversalis muscle, he adds, "Hereby may be explained the opinion which some surgeons have entertained of the spasmodic nature of the stricture—a state which it was difficult to account for, when the seat of strangulation was confined to the external ring, or this tendinous aperture possesses no muscular action, and cannot assume the state of spasm."—Page 28, part I.

"These means (tobacco, opium, &c.), are less frequently effectual here (in the femoral hernia), than in the inguinal hernia, which is probably owing to two causes—namely, to the nature of the parts through which the (femoral) hernia descends, and the smallness of the aperture forming the mouth of the sac. In the inguinal hernia the parts are so connected with muscles that any relaxation brought on in these affects the aperture through which the hernia descends; but in crural hernia the seat of the stricture is less connected with the action of muscles, and general relaxation has but little effect on them."

"The effect of the tobacco enema in hernia depends much upon whether the hernia is situated near muscle or tendon; if it is surrounded by the former, the effect will be considerable and instantaneous."—*Lancet*, p. 464: Sir A. C.'s lectures.

The first of these remarks was made by Sir A. C. in 1804, the second in 1807*, and the third in 1826. The following remark, in reference to the cause of stricture in inguinal hernia, was made in 1827, in a note to his second edition of Hernia, which I mention to shew what idea was entertained by a pupil of Sir A. C.'s. Speaking of the transversalis muscle, I observe, "this tendinous loop or band can readily be felt by passing the finger up through the external ring, and will demonstrate one cause of a hernia becoming strangulated at the internal abdominal ring."—Page 14, Part I.

Mr. Guthrie may perhaps think that these opinions are peculiar to Sir A. C., and not entertained by the members of the profession in general. I need not tell Mr. G. how many of the present generation of medical men Sir. A. C. has instructed in anatomy and surgery; or that his opinions are shared by most of those who have received instruction from him. Although Mr. G. may not have heard of them, or read them, they are not the less familiar to those who have heard Sir Astley lecture†. Indeed, so much importance did he attach to the muscular contraction of the transversalis at the inner ring, as a cause of strangulation, that it was thought by some that he taught almost too exclusively this doctrine, and attached too little importance to the condition of the strangulated parts.

In the year preceding that in which Mr. Guthrie gave his lectures at the College, and also preceding the year of Mr. G.'s discovery, Sir A. C. wrote as follows in the work on the Testis:—

"It (the lower edge of the transversalis muscle) begins to be fixed in Poupart's ligament almost immediately below the commencement of the internal ring, and it continues to be inserted behind the spermatic cord into Poupart's ligament as far as the attachment of the rectus. Thus the inguinal canal is endowed with muscular contraction, which, under the action of the abdominal muscles, serves to close it, and lessen the propensity to hernia. Sometimes a portion of muscle descends from the tendon of the transversalis in the course of the linea semilunaris, to be inserted into the fascia transversalis, behind the cord and into Poupart's ligament. It is this circular insertion of the transversalis which is the cause of stricture in inguinal hernia, in the course of the canal, and nearly at the upper ring."—Page 36.

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* Sir Astley Cooper published his discovery of the fascia transversalis and the inner ring in 1804, and of the fascia propria of femoral hernia in 1807, though he had been in the practice of demonstrating them for two or three years previously.

† Mr. Swan, whose testimony on this point will not be questioned, has addressed the following note to me:—

"My dear sir,—As a pupil of Sir Astley Cooper's, I think it only an act of justice to him to state, that I attended his lectures in the winters of 1810-1811, and 1812-1813, when he stated that the lower part of the transversalis muscle was the cause of stricture in inguinal hernia.—I remain, my dear sir, yours very truly,

"6, Tavistock-Square, J. SWAN."
"Nov. 20, 1833."

In plate 5. *fig.* I. he gives a view of this muscular structure of the inguinal canal, and adds, in the description—"*c c*, transversalis muscle, arising from Poupart's ligament, and passing around the spermatic cord at the internal ring; so that the fibres of this muscle appear behind, as well as before the spermatic cord, and thus the canal is rendered a muscular canal."

And in a foot note he adds, in reference to the circular arrangement of the transversalis fibres, "this is a most important provision in preventing hernia, and when it does exist, it is often the seat of stricture."

In the year following these last remarks of Sir A. C. has Mr. Guthrie the modesty, (I really cannot call it by a milder name), to write, "that it is the prevailing opinion of modern surgeons, that the parts through which a hernia passes, or proceeds, have little or nothing to do with the causes of strangulation."

Thus the writings of Sir A. C. are made by Mr. G. to pass as so many idle words; and why? because an acknowledgment of the truth, as demonstrated in the above quotations from his works and lectures, would deprive Mr. G. of the groundwork of his discovery, and leave it in appearance, as it is in fact, a baseless fabric. He prefers assuming a false position, in order to give to his writings a more decided air of novelty, and to exhibit himself in the garb of original discovery.

What answer does Mr. G. make to the above exposé of the real opinion of surgery of the present day? Through his whole reply, occupying a space of nearly eleven or twelve pages, he dismisses this charge with the following brief notice:—

"Mr. Key is exceedingly displeased with me, because I have said that in 1831 it was the prevailing opinion of modern surgeons that the parts through which an inguinal hernia passes or proceeds have little or nothing to do with the causes of strangulation. I am sorry he should be displeased, but I cannot help it: I am of the same opinion still, and may be a very obstinate person; but if my readers will consult the recollections they entertained on this subject in Feb. 1831*, when the lecture was delivered, (and my paper alludes to nothing written since that period), I suspect many—nay, most of them, will agree that they also hold such opinions."

I am perfectly willing to leave this question of priority to the decision of the candid members of the profession.

Charge 2.—This is so mixed up with the first charge; and his claim so obviously admits of being refuted by the proofs extracted above, that I shall only state the charge as made in my remarks.

Mr. G., in 1831, lays claim to the discovery of the muscular structure of the inguinal canal, when such a structure had been demonstrated by Sir A. C. in 1830, in the following words:—"The opinion that this opening is in many instances a muscular one, was, I believe, first advanced by myself; having always maintained that point since the year 1816, although I had not been able to give a demonstrative proof of it until the delivery of my lecture in the theatre of the College of Surgeons."

Here is a distinct claim put in by Mr. G. to the discovery and descriptions of Sir A. C. What a fortunate circumstance for Mr. Guthrie that the publication of Sir Astley Cooper's delineations and descriptions of the muscularity of the upper opening of the inguinal canal should take place just the year before Mr. Guthrie's lecture at the College! What a confirmation of Mr. G.'s opinions! How satisfactory to him to find all that he wanted, to complete his discovery, described ready to his hand! In 1831, he accordingly lectures on the subject of hernia, and takes an opportunity of expatiating on the discovery he has made. Thus much for the equity of Mr. Guthrie's prior claim to the discovery of the muscularity of the upper abdominal opening,—a priority that Mr. G. establishes by stating that he discovered that, in 1831, which (to use Mr. G.'s phrase), every dog that runs the streets could ascertain (provided he could read) had been discovered in 1830.

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* It being recollected by your readers that in 1830 Sir Astley Cooper's last work on the subject was written.

I cannot place the force of his claim in a stronger light than I have done in my "remarks." He first claims the muscularity of the superior opening of the inguinal canal, in the teeth of Sir Astley Cooper, and then subsequently adds, "the opinion that this opening is in many instances a muscular one, was, I believe, first advanced by myself; having always maintained that point since the year 1816, although I had not been able to give a demonstrative proof of it until the delivery of my lecture in the theatre of the College of Surgeons:" which, being interpreted, means, that from the year 1816 he had entertained the opinion promulgated, or rather demonstrated, by Sir Astley Cooper in 1804—that muscular action exerted an influence on the inner abdominal aperture; but that he had not been able to demonstrate the nature of the muscular apparatus until the year 1831, being the year following the appearance of Sir Astley Cooper's work on the Testicle, in which the muscular fibres of the canal had already been delineated and described.

Mr. Guthrie answers this charge by professing to differ somewhat in his views of the muscular fibres. Of such nice distinctions I again profess myself unable to judge with any degree of accuracy. If Mr. G. wishes to raise up a character for erudite anatomy by splitting hairs or the transversalis muscle, he may, so far as I am concerned, rest in undisturbed possession of his distinction. I am not here writing to settle differences of opinion; that is the business of a reviewer. I am standing forward, as bound by duty, to protect the claims of Sir Astley Cooper as an author from depredation. Whatever peculiarity of opinion Mr. Guthrie may hold—and his work abounds with strange peculiarities—I have no wish to disturb. It is not a difference of opinion that I am contending about, but for a priority of claim: to this latter point Mr. Guthrie makes no definite answer.

The third charge which I have to make against Mr. Guthrie is one of minor importance compared with the two former. They involve a charge of no slight import to a man who values his character for fair dealing. The present I should not have entered upon, as it is rather a difference of opinion as to matters of fact, which any man may entertain without being accountable for such opinions; but there is so much profession of regard for Sir Astley's opinion—so much shew of delicacy, and even hints of forbearance towards him—that it becomes necessary to shew that he is not much acquainted with the dissections which Sir Astley has made in elucidation of the structure of femoral hernia.

I do not observe a single allusion to Sir Astley Cooper's work on *Hernia* in the whole of Mr. Guthrie's performance; and he takes especial care to have it understood that he has made no reference to it: for instance, page 16, he says, "the statement said to be made by Sir Astley Cooper," as if he had not written upon the subject, but his opinions were to be taken at second hand. Whence this affectation of studiously avoiding consulting Sir A. C.'s work?*

The reason is pretty clear. He has, instead of making himself acquainted with Sir Astley's views of the structure of the sheath, given a plate said to be from a dissection by Sir Astley Cooper. Nothing but the strongest assurance from Mr. Guthrie could have made me believe, that so imperfect a view of the structure of those parts could have proceeded from the scalpel of such a master. Mr. Guthrie cannot surely believe that this affords a view of Sir Astley's dissection of those parts. Only let him compare it with the beautiful and elaborate dissections as displayed in his large work on Hernia. In this plate of Mr. G.'s, there is not a single point made out. It must be a burlesque of Sir Astley Cooper's opinions. The connexion of the fascia transversalis and its formation of the sheath universally form a part of his dissection, and are points he particularly insists upon in all his demonstrations of the anatomy. If Mr. G. had sought a mode of bringing Sir A. C.'s opinions into contempt, he could not have hit upon a happier one. As a standard of what Sir Astley has done on the subject of hernia—for such, I suppose, Mr. G. wishes it to be regarded—it is ludicrous.

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* In order that Mr. Guthrie might understand his views of hernia, Sir Astley Cooper requested me to send a copy of his folio work to the library of the College of Surgeons. This was about the time when Mr. Guthrie was writing his work, and Sir Astley expressly stated to me that he wished Mr. Guthrie to have a clear understanding of his dissections.

With this drawing before him, as containing Sir Astley's ideas upon the subject, it cannot be expected that Mr. G.'s acquaintance with Sir Astley's opinions can be otherwise than imperfect. If he wished to become acquainted with them, he might have readily obtained his object by referring to his long-recorded opinions upon the subject. He would have discovered, that our knowledge of the matter, as represented by Sir Astley Cooper, has been not much, if at all, improved by the more modern researches of foreign anatomists. Mr. G. would not then have stated, that, "by a little management in dissection, it (the septum crurale of Cloquet) may be made to assume a funnel-like shape on the thigh."—Page 3. This is, I presume, an oblique blow at Sir Astley's funnel-like description of the same structure. If so, Mr. G. quite misapprehends Sir Astley's dissection. The funnel shape of the sheath is one of the most defined points in the anatomy of femoral hernia; by no legitimate dissection can it be made to present any other form. It requires no management to produce it. But Mr. G. mistakes; it is not upon the thigh that the funnel shape is seen: it is only by dissecting the inner portion of the fascia transversalis, where it is attached to the pubes, and descends from thence around Gimbernat's ligament, that the true shape of the sheath can be exposed to view. I am satisfied that Mr. Guthrie wholly misapprehends Sir Astley's view of this structure.

It is upon this misapprehension that is founded Mr. G.'s objection to the opinion, that a femoral hernia enters the sheath when it quits the abdomen. It is in vain for me to render this intelligible to him: his conception of the anatomy of the structure between the femoral vein and Gimbernat's ligament is, in my view, so imperfect, that I must despair of making it clear to him by any verbal description. It is his want of acquaintance with Sir Astley's descriptive anatomy that makes Mr. G. prefer that of the French anatomists: the works of these latter he has consulted; that of Sir Astley he has wholly avoided *.

A better acquaintance with his discoveries and his descriptions of femoral hernia would also have told Mr. G. that it is not the prevailing opinion of modern surgeons, that a femoral hernia has behind it the fascia lata. I can assure him, notwithstanding his opinion to the contrary, that such an opinion is peculiar to him. A femoral hernia has behind it not only its sac, but also the posterior part of the sheath formed by the junction of the fascia transversalis and iliaca, which latter forms the back part of the sheath in its normal state.

Mr. G. might also have learned from the same source, that it is not owing to the small vessels given off by the femoral artery that a femoral hernia ascends over Poupart's ligament, "instead of making its way down the thigh like a psoas abscess." He would have found the true reason described there; namely, that the sheath naturally yields most readily in that direction, and the attachment of the superficial fascia is also such as to prevent its descent upon the thigh. I would here take the opportunity of adverting to a singular opinion which he attributes to the French anatomists:—"When the French anatomists say that the hernial sac is protruded into the superior opening of the crural canal, takes the course of the canal, and reappears at its lower opening, or where the vena saphæna joins the femoral vein, it is only intelligible by understanding that the hernial sac lies in contact with the femoral vein," &c.—Page 32. I have a better opinion of the French anatomists than to suppose that they could describe a femoral hernia as descending to the junction of the saphæna vein with the femoral. It is a statement so utterly at variance with the fact, that I am inclined to think that it could only have existence in the "vivid imagination" of Mr. Guthrie.

Another point, which a reference to Sir Astley's work might have somewhat improved, is the situation of the stricture in femoral hernia. Mr. Guthrie, probably under the impression that this is also a prevailing opinion, though, in reality, it is peculiar to him, says, that "the stricture is formed by the fascia lata." This is a very old opinion, which, from its unsoundness, has been long exploded. It is founded on error; and the reason of Mr. Guthrie's entertaining such an opinion seems to me to be, that he does not understand his very clear demonstration of the sheath where it joins the under

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* In saying that Mr. G. has avoided consulting Sir A C.'s work, I of course allude to that on Hernia. Mr. Guthrie has taken advantage of this, and represents me as denying that he has quoted Sir A. C.'s work on the Testicle. He must be aware of my referring only to the work on Hernia.

part of Poupart's ligament. Mr. G. knows full well, that it is not Poupart's ligament that forms the stricture; and not being acquainted with the band that unites the sheath to the crural arch, he has recourse to the fascia lata as being the only part to which he can refer the stricture. The true seat of stricture, as Mr. G. will find described in Sir Astley's work, is in the band that forms the fore part of the sheath, and joins it to the under part of the crural arch. This band, which is continuous to the pubes, and is a continuation of the inner portion of the fascia transversalis, is alone sufficient to set the stamp of truth on Sir Astley Cooper's description of the sheath of the femoral vessels.

Mr. Guthrie, instead of giving any direct answer to the above charges, very dexterously turns round upon me, and accuses me of misquoting, and thereby misrepresenting him. If I have done either, I assure him that nothing was further from my intention. The accusation, however, he has enlarged upon, and places himself before the profession as an injured man — as one who has been grossly misrepresented and traduced. There are four charges of misrepresentation brought against me; two of them are in italics in Mr. Guthrie's reply, one in capitals, and the fourth occupies a very large part of his paper in the Gazette.

First charge seems to consist in my falsely asserting, that he has taken the descriptions of the authors whom he quotes from Mr. S. Cooper's Surgical Dictionary. I have said so in order to explain the mistakes he has been led into by not referring to Sir Astley Cooper's work on Hernia; but I have also been induced to say so, because Mr. Guthrie has said in substance the same thing. Page 3, he says, "that it may not be considered I am combating a shadow, I shall first show what are the opinions of some of the ablest anatomists, who have written on these points, and then proceed to develope my own. Mr. S. Cooper, whose Surgical Dictionary may be justly consulted as a summary of the opinions of the principal surgeons in Europe, has given in the last edition of this work (1830,) page 653, the following account of the anatomy of the parts concerned in inguinal hernia, compiled with especial reference to the works of Sir Astley Cooper, Messrs. Lawrence, Scarpa, Hesselbach, Cloquet, and Langenbeck." Mr. Guthrie then gives a quotation from Mr. Cooper's Dictionary, occupying about a page and a half, as a summary of the opinions of the first surgeons in Europe. Again, page 16, when speaking of direct hernia, he again quotes Mr. Cooper's Dictionary for the opinions of the same authors: — "Mr. S. Cooper gives (page 660 of his Dictionary) the opinions upon this point of Messrs. Hesselbach, A. Cooper, Cloquet, Lawrence, and Stanley, leaving it, however, undecided whether the covering or investment is or is not formed, as, he says, Sir Astley Cooper is reported to have described it in his Lectures, viz. one half by the tendon of the transversalis and the other half by the fascia transversalis." On the strength of this quotation, he proceeds to criticize Sir Astley Cooper's description. Again, page 30, he introduces the subject of femoral hernia, thus: — "The points on which I wish to remark with reference to femoral hernia are few; and on referring to Mr. Samuel Cooper's Surgical Dictionary for the existing state of opinions on them, I find the accounts, as given by Hesselbach and Langenbeck, so prolix, as to be almost unintelligible to persons not already well acquainted with the subject. I shall, therefore, refrain from quoting them, and only notice those which are most commonly received or remain a matter of doubt."

If such a mode of gathering an author's opinions, and such a reference to Mr. Cooper's Surgical Dictionary, be not a sufficient justification of my complaint that Mr. Guthrie takes his authors at second hand, I know not the meaning of language. It is true that he has given an original quotation from Cloquet and one from Blandin; but not one from Sir A. Cooper's work, either on inguinal or femoral Hernia. The quotation which he makes from Sir A. Cooper, is from his work on the Testicle; but to that work which contains his complete views of the whole anatomy of hernia, Mr. Guthrie makes not the slightest allusion. He must be aware that, in charging him with studiously avoiding all reference to Sir A. Cooper's work, I can only allude to his work on Hernia; and this is the reason of my saying that he is shy of consulting Sir Astley Cooper's writings*.

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* Let it not be supposed that I mean the slight-

Charge second is, that I have misquoted a paragraph, and made it nonsense. This is too good an opportunity to be lost, and, in order to make it more conspicuous to the reader, Mr. G. has had the error printed, not in italics, but in large letters*. I have, in transcribing the passage from his work, accidentally written the word muscular instead of circular. I do not see how such a mistake makes the sentence nonsense; and now the error is repaired, the meaning of the sentence and of the context is still not clear to me.

The third charge of misrepresentation is, that in endeavouring to make out the distinction between Sir Astley's description and Mr. Guthrie's, I have said that I believed Mr. G. to have found them more circular than Sir Astley Cooper had described them. It appears that I am wrong; for Mr. Guthrie says that he has written exactly the reverse: "that the fibres alluded to were not circular, but straight." A mere difference of opinion, or of description, between these two authors, is not a subject on which I have any wish to comment; and if it be any atonement to Mr. Guthrie for the offence of misunderstanding him, I beg to say that I am willing to admit that they are either straight or circular, or, if he pleases, both.

The fourth charge, which brings down the whole weight of Mr. Guthrie's displeasure on me, is, that I have wrongfully charged him with want of courtesy and fairness towards Sir Astley Cooper. The proper way of shewing his respect to Sir Astley Cooper, would have been to have treated his opinions and his works fairly. †Mr. Guthrie has not done this, and he must, on reflection, be aware that he has not. He asserts, in his "reply," that he has given all that Sir Astley Cooper has said on the subject! "I must beg the reader to pause, and to ask himself what man can do more to another, than to give every word he has said on the subject in question? I ask again, can any man wish for more, in an inquiry, than to have *all* he has written distinctly laid before the judges? Is it possible that a man who acts in this way can be accused of not having referred to the original author? I should have thought not; but Mr. Key, through inadvertence, has done it." And in what does the reader suppose that this "all" of Mr. Guthrie's—this summary of Sir Astley Cooper's opinion—this "every word that he has said on the subject," consists?—why, in one paragraph from his work on the Testicle, giving an account of the inguinal canal in reference to the course of the cremaster and spermatic cord, and the engraving. This "all" contains not one word or one allusion to his work on Hernia; and yet he is displeased with me, and charges me with misrepresenting him, because I accuse him of not referring to Sir Astley Cooper's work on the subject of Hernia. It is demonstrably clear, therefore, that my original charge against Mr. Guthrie, of not reading the work in question, is substantial and just.

But it seems that meetings have taken place between Sir Astley Cooper and Mr. Guthrie, and also several conversations, on the subject of hernia; that he has, out of delicacy to him, consulted him, and endeavoured to make himself master of his opinions before he published his book. It is not for me to say what private conversations have taken place between these gentlemen, nor what was their nature. The report of them rests entirely on the word of Mr. Guthrie. But I must beg leave to doubt whether any conversations with Sir A. Cooper could lead to the results which Mr. Guthrie's account would imply. If we are to credit Mr. Guthrie's report, it appears that he has the sanction of Sir Astley Cooper to every word that his work contains; *that Sir Astley Cooper

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est disrespect to Mr. Samuel Cooper. I have always considered his Surgical Dictionary as the most useful work on surgery in the English language, and as containing the most able and fair digest of the authors' opinions whom he quotes.

* Medical Gazette, p. 254.

† While the unpleasant task has fallen upon me thus to express my sense of Mr. Guthrie's treatment of Sir Astley Cooper, it is gratifying to observe, as it is to acknowledge, the liberal course pursued by such men as Lawrence, Samuel Cooper, and Cloquet, in their works on the subject.

* Mr. Guthrie says that the proof-sheets of his work were placed in Sir Astley Cooper's hands for correction. Did he read them? Sir Astley is known to be rather a worker than a reader; and he might, in confident reliance on Mr. Guthrie's honour, after the conversations they had had together, have neglected to read the work; and he was fully justified in supposing that his opinions would be respected and his discoveries acknowledged. Or, if he read them, he might feel some hesitation in taking upon himself the responsibility of correcting the work of another, particularly a work so replete, as Sir Astley could not but discern, if he read it, with inaccuracies of fact and opinion. At all events, the work seems to have been returned to Mr. Guthrie without revision or comment, except on one unimportant point.

was consulted before it went to press, and was invited to make any alterations he chose. Will it be, can it be, believed, that Sir Astley Cooper has been accessory to the degradation of his own reputation, by giving his assent to the correctness of Mr. Guthrie's statements? Is it possible that he could admit Mr. Guthrie's claim to the discovery of the muscularity of the inner ring? Is it possible that he could assist Mr. Guthrie in overthrowing his own reputation for originality in his descriptive anatomy of hernia, a point that he so much values? Is it likely, I would ask, that he should himself quietly yield the labours of many years—labours which, it is well known, have been the foundation of his character? Is it probable, or possible, that he would himself falsify his own statements? Is it likely that he would surrender into Mr. Guthrie's hands nearly the whole of his discoveries in the anatomy of inguinal hernia? According to Mr. Guthrie's account, he must have acquiesced in all this. The solution of this is, indeed, difficult. Either Mr. Guthrie must be in error, in using Sir Astley Cooper's authority in the way he has done, or Sir Astley Cooper must have acted in a manner altogether at variance with human principles and human feelings, and have sacrificed his reputation out of delicacy to Mr. Guthrie. The plan of appealing personally to an author, instead of his work, is novel; it affords Mr. Guthrie an opportunity of interpreting pretty largely the opinions of the author. Sir Astley Cooper probably thought, that by giving personally to Mr. Guthrie his views of the anatomy of hernia, he should avoid the chance of being mistaken. The reverse has been the case; by giving him verbal interpretations of his views, he has afforded Mr. Guthrie an advantage which the latter never could have obtained if he had been referred to the printed work. The purport of a conversation passes away, or is remembered only by Mr. Guthrie; who would, naturally enough, only burden his memory with such parts as bore a favourable view on his side of the question. But a conversation, if ever so impartially reported, cannot set aside the published opinions of an author. Mr. Guthrie may think otherwise. The ingenuity of the plan cannot be doubted. Even he must smile as he reads this.

Mr. Guthrie thinks that I have as little respect for Cloquet as he says I have for the author of the Surgical Dictionary. He can have read to very little purpose if he thinks so. I have long ago given my opinion of Cloquet's "Récherches Anatomiques," and have acknowledged his candid dealing towards Sir Astley Cooper. My opinions of Cloquet had been put on record when Mr. Guthrie's ideas of hernia, according to his own account, were in a state of pupillage under Sir Astley Cooper.

The taste of Mr. Guthrie, in preferring the French account (Cloquet's), as being the most elaborate, to the works of his English contemporaries, may be questioned; but as that is a matter of opinion, I have nothing to say to it: an opinion that, in Mr. Guthrie, is easily accounted for by the circumstance of Sir Astley Cooper's work being unknown to him. The appeal to chivalry, made by Mr. G. comes rather with a bad grace from him; he must be sensible that his conduct towards his friend and associate would, in an appeal to a court of chivalry, endanger his spurs being knocked off. Nor is his lamentation over the state of the profession better timed: with him, I regret that any personal expressions should be used by the members of our profession; but I am more sorry that there should be any cause for them.

Mr. G. complains that I have insulted him, and hopes "that I shall lose no time in retracting, in the strongest manner, the insulting expressions I have made use of" towards him. I have made use of no expressions that can be termed insulting. Disagreeable truths are often felt as insults by those to whom they are addressed. In his cooler moments, Mr. G. will perceive the difference. When he has the candour to relinquish claims to which he has no sort of pretension, I shall be ready to recal any expressions that may be grating to his feelings—but not till then.

I beg to return Mr. Guthrie thanks for the personal civility he has shewn me in his "Reply." Whether Sir A. Cooper feels equally satisfied with the compliments paid to him, at the expense of his understanding, is not for me to judge. It is, I think, little less than adding insult to injury. His just claims are disallowed—his discoveries appropriated, and his descriptions set at nought, by his friend Mr. Guthrie; who thinks to heal the wounds he he has inflicted in his reputation by words of flattery and of compliment. Sir Astley Cooper is not a man to be satisfied with empty words; he exacts from his friends, on such occasions, a manly and open statement of the truth—it is all he can wish or require.

In taking a final leave of Mr. Guthrie, may I beg him, should he honour me with any farther notice, to bear in mind that there are but two points in the whole controversy that really require any answer; these are the two first charges in my present remarks—viz. to whom belongs the priority of claim to the muscular action at the internal ring; and the demonstration of the fibres producing such contraction—setting aside all points of opinion, but confining himself to the question of fact. To them may I beg a direct answer? And Mr. Guthrie will perhaps forgive me if I take the liberty of hinting, that he may yet learn something on the subject of hernia from those English authors whom he holds so cheap.

Your obedient servant,
C. ASTON KEY.

18, St. Helen's-Place,
Nov. 19, 1833.

PHTHISIS CURABLE—MR. MACLURE AND DR. M. HALL[*].

To the Editor of the Medical Gazette.

SIR,

ANGER is said to begin in folly and end in repentance. Whether the passion into which I have unintentionally thrown Dr. Hall does, in its origin, justify, or is yet by its end to approve this maxim, time must try. Very confident prognosis is a ticklish thing. But as Dr. Marshall Hall has, in your journal of last Saturday, uttered sundry accusations against me, you will perhaps spare me a page or two, whilst I endeavour to set myself right with your readers.

First, then, I may remark, that the illiberal sneer about "Mr. Maclure and his pauper patients," becomes *well* the man who was favoured by Mr. Maclure with a good deal of lucrative employment. *Why* I may no longer avail myself of Dr. Hall's assistance, no one knows better, or has more cause to regret, than himself; but it is needless at present to say more on this point.

As to my having been guilty of a breach of etiquette by disclosing Dr. Hall's prognosis, sure I am I have done nothing which is not daily practised by eminent men, when it is meant to serve, as in my case, a scientific end. Thus, not to quote many examples, Dr. Baillie[*], in his "observations on a strong pulsation of the aorta," broadly states, that "Sir Cæsar Hawkins and Mr. Bromfield told him (the patient) that it was an aneurism of the aorta, and that Dr. Hunter said he did not know what it was." Moreover, Dr. Hall himself, has on one occasion done[†], and on another sanctioned in a friend[‡], the very thing he condemns in me.

The truth is, I do not see how the value of any suggestion is to be estimated, except by shewing that the thing suggested succeeded better in the hands of its propounder than some other thing did in the hands of some *known* authority. My object in mentioning Dr. Hall at all was simply this—in stating the importance of the pulse as an element of prognosis in phthisis, I meant to shew its value by the fact that it had enabled so humble an individual as myself to deliver a juster prognosis than the stethoscope in the hands even of Dr. Hall had enabled him to do. How great must be the vanity which could desire a higher compliment than this!

Dr. Hall denies that he declared that my patient must shortly die. In answer to this, I assert that Dr. Hall predicted that Jones would die during the winter then succeeding, viz. that of 1831-32. It is strange that if I had committed any mistake in this statement Dr. Hall should not have set me right, when I read the paper before the Harveian Society nearly two years ago. Upon that occasion he admitted ALL I HAD SAID TO BE TRUE, and did not exhibit any of that displeasure which the publication of the paper has engendered. On the contrary, he took it all in good part, and facetiously remarked, that the case reminded him of the consultation betwixt Gil Blas and a physician, the result of which was that their patient recovered, but Gil Blas, the erring party, insisted that he *ought* to have died. That Dr. Hall, like Gil Blas, has been shewn by the event to be wrong in his opinion, I am far from imputing to him as a fault. I was not aware till now that his pretensions reached quite so far as infallibility. Philosophical physicians have none of Dr. Hall's morbid sensibility: *they* are always forward to avow their occasional want of accuracy and success in opinion and practice. It is this chiefly which gives us confidence in their statements, when they relate successful practice.

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[*] This controversy has become so entirely personal, that it can no longer be of interest except to the parties, and we must therefore decline continuing it. It may be proper to state, that Mr. Maclure's reply was considerably longer, and in his opinion more complete, but that, in deference to our request, he was so obliging as to curtail it.—ED. GAZ.

[*] Works, by Wardrop, Vol. I. p. 25.

[†] On a Morbid Affection of Infancy, p. 38.

[‡] Ibid. p. 25.

Dr. Hall makes a great parade of his French learning, and introduces a great mass of it into his lucubrations, without thinking that by so doing he forces people to make disagreeable comparisons. He does not seem to be aware that there is any reproach in the circumstance of a physician of his years and pretensions being obliged to swear so servilely in the words of a foreign master, and to avow his having derived his knowledge of a disease, so common in his own country, solely from foreign sources. And so conceited is he of this sort of learning, that he even makes it a matter of implied censure upon me, that I have not loaded my paper with long quotations from French pathologists, nor made more frequent allusions to their works, though to all but Dr. Hall it must be clear that the tenor of my remarks implies a knowledge of the best English as well as French writers, and that every idea expressed coincides with what he quotes.

But in my turn, if I, against my will, were to imitate the Dr.'s mode of proceeding, I might charge him, from what he has said, with having only a partial knowledge of his boasted authorities. He tells us,[*] "he declared that which a physician *intimately* acquainted with the recent works of Laennec and Andral, and who had detected well-marked pectoriloquism, with the other signs of phthisis, must declare—viz. that the case was one of ulcerated, tuberculous cavity, and therefore a fearful one," &c. Now it is plain, from the tone of this passage, that Dr. H. is unconscious of the fact that pectoriloquy, according to Andral, is NOT a sure proof that the case is one of "ulcerated tuberculous cavity." In his eighth observation[*], Andral details a case in which "Il y avait pectoriloquie evidente," as to which (not thinking it dishonourable to publish the mistake of his *only* COLLABORATEUR), he says, "M. Lerminier regarda ce malade comme atteint d'une phthisie pulmonaire, dont la marche avait été lente. La nature des crachats et la pectoriloquie paraissaient indiquer que des cavernes étaient dejà formées." The man having died, the dissection did *not* shew an "ulcerated tuberculous cavity." "N'était autre chose qu'une dilatation considerable d'un rameau bronchique." It seems, then, that Jones's case *may* after all have been chronic bronchitis, and that Dr. Hall *may* have been as far wrong, trusting to the stethoscope alone, in his diagnosis, as in his prognosis.

As to the "fausse convalescence," as applied to cases of recovery from phthisis, I am not sure of the accuracy of the term, though in my paper I recognize the possibility of Jones's cure being only temporary; and for the same reasons, too, that Laennec states, in Dr. Hall's last quotation. What! is recovery from a disease, be it gout, phthisis, or any other hereditary malady, to be called only a "fausse convalescence," if after its symptoms have been developed, a removal of these take place, and the patient continue in good health, until the occurrence of another distemper? Why, we should never have a recovery at this rate; and a man having two attacks even of pleurisy, with an interval of fifty years between them, must not be said to be cured of the first, because, forsooth, it may have made him more liable to the second!

I will not retort further on Dr. Hall, by supposing him ignorant of Dr. Heberden's work: that physician, he will recollect, anticipating Laennec's question—"La guerison de la phthisie, est-elle possible?" narrates the following case:—"Summus etiam ille medicus Edvardus Wilmot cum nondum vigesimum complevisset annum tabe adeo ægrotabat, ut quod ipse mihi narravit, non solum propinqui sed etiam expertissimi medici de salute ejus desperarent; vixit tamen, viguitque nonagesimum annum egressus [*]." And if Dr. Hall be acquainted with Dr. Young's monograph on phthisis, he may recollect that that physician was in his youth affected with well-marked symptoms of consumption, yet he recovered, and died of another disease at an advanced age. Are we to call both these cases, as well as Jones's, now of two years' duration, only so many instances of "fausse convalescence?"

Lastly, as to the alcoholic lotion, the

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[*] Clinique Médicale, tome i. p. 197.

[*] Commentarii de Morb p. 324.

"breast-plate" of Dr. Hall, I confess I am sceptical as to its utility, at least in effecting the *local* purpose contemplated by its patron. I suppose it is used to lessen the heat of the parts within the thorax, which are in a state of morbid action. But when it is considered how remote from the surface the seat of disease is, I question its power to cause any notable change of internal temperature. It was mainly for this reason I soon gave up its use, and began to treat Jones constitutionally, by still more bracing and conservative means.

It is strange that Dr. Hall should attribute so *much* to his lotion, employed, though it be, with such extreme nicety, whilst he ascribes so *little* to the other remedies, which, borrowed without acknowledgment from my friend Dr. Steuart, of Erskine, he wisely conjoins with it; namely, "a mild animal diet, regulated bowels, early hours, flannel, sponging, and exposure to the air: to these being added, constant journeying or sailing." Truly, this stroke of etiology rivals that of the alderman, commemorated by Gray, who after living forty years on the fat of the land, (not milk and honey, but arrack punch, and venison,) and losing his great toe with a mortification, said to the last that he owed it to TWO GRAPES, which he ate one day after dinner.—I am, sir,

Your obedient servant,
WM. MACLURE.

14, Harley-street, Nov. 18, 1833.

PROFESSOR GRANT AND MR. WAKLEY.

To the Editor of the Medical Gazette.

SIR,

You have repeatedly taken occasion to allude to the connexion between certain Professors in the London University and the radical portion of the medical press, expressing your belief that there existed an understanding between the parties as to the system of reciprocity in puffing each other. If any of your readers imagined that this was done on insufficient grounds, they will probably now be undeceived, Dr. Grant, the learned Professor of Comparative Anatomy, having with more boldness—or with greater simplicity, than some of his colleagues, thrown aside the mask. That gentleman so overflows with gratitude for "ANOTHER instance of kind attention—he might *almost* say partiality," which has been shewn them, that he has made, not the publication only, but the individual by whom it is edited, the subject of eulogy and recommendation to his pupils from the professorial chair! Extraordinary as such proceeding would, under any circumstances, have been, it is probable that I should not have noticed it had the indiscretion been merely the first ebullition of gratified vanity, in consequence of the manner in which his name had been mentioned in certain advertisements of the Lancet; or had it been confined to the class-room; but when Dr. Grant, after a lapse of several weeks, has suffered these sentiments to go forth to the world with his own deliberate revision, then do they become public property, and amenable to public criticism. Dr. Grant, then, in humble gratitude for the "kind attention" and "partiality" shewn by their patron to himself and colleagues, commended him by name to his pupils, in terms such as assuredly were never bestowed upon him before, except in irony. He calls him—"Mr. Wakley, the indefatigable and *learned* Editor of a publication familiar to you all * * * A CASTIGATOR OF EVIL DOERS, AND A REWARDER OF THE GOOD"!!! Such are the words, deprived, in the retirement of the closet, of any thing *de trop*, which might have been uttered in the excitement of the moment.

From this we gather, that in Dr. Grant's opinion, Wakley's "castigations" have been directed against the "evil-doers," in such manner as fully to meet his concurrence; and that his "rewards" have shewn like discrimination, inasmuch as they have been bestowed upon the "good." When the learned Professor next introduces such discursive subjects to his pupils, perhaps he will explain to them what particular part of his patron's exertions, in those respects, has most excited his admiration. Is it his conduct towards his late, and some of his present, colleagues?—his insolent mockery of Sir Charles Bell?—his persecution of Dr. Conolly?—or the contumely he has heaped upon Dr. A. T. Thomson? or is his approbation most strongly excited by Wakley's efforts to keep down the rival school in the Strand? or is his admiration warmest when he contemplates the picture given in the Lancet of those connected with our hospitals?—the treatment of Abernethy, Astley Cooper, or Sir W. Blizard?—of Brodie, Travers, or Keate?—of Earle, Tyrrell, or Stanley?—of B. Cooper, Guthrie, or Mayo?—in short, of almost every surgeon in the metropolis connected with an Hospital School, who has acquired any degree of professional celebrity? Or does the worthy Professor contemplate only those cases in which the amiable Editor has been the patron of modest merit?—let him enumerate, then, those instances in which, with the exception of his own particular case, he has proved himself "the rewarder of the good," as regards any existing physician in London, except Dr. Elliotson—or any surgeon, except Mr. Wardrop! Perhaps he will also point out to his pupils what part of Mr. Wakley's conduct he considers as chiefly meriting their applause;—what portion of his career, from his first attracting attention, in consequence of the destruction of his house by a still undetected incendiary, to his *fourth* conviction for libel in a court of justice, he would especially recommend to their imitation.

The only charitable explanation, sir, of all this is, that Dr. Grant did not *know* the character of the publication of which he spoke; I therefore take leave to inform him that he has expressed his approbation of a paper *which has existed by slandering his brethren—which has systematically dealt in libel and falsehood—which has violated every principle of professional etiquette and honour—and which has not scrupled, when it served the purpose of the moment, to have recourse to forgery*—aye, sir, FORGERY is the word: to which long list of literary virtues, I have to add, that of ribald jesting on holy things, and blasphemous derision of the sacred truths of Christianity! Such are a few of the characteristics of the publication which Dr. Grant has represented as the "rewarder of the good,"—SLANDER, FALSEHOOD, FORGERY, and BLASPHEMY! and I leave it for others to decide whether these be qualities which entitle a work to the praise of those entrusted with the care of public education, and holding the responsible situation of the instructors and the guides of youth. With this I take leave of Dr. Grant; nothing doubting, after what I have said (and of the truth of which he may easily satisfy himself), that he will concur in the observations you lately made in one of your leading articles—"they who, to gratify some petty vanity of their own, give their support to a publication in which malice stands bare and hideous, the still conspicuous and glaring motive of animosities the most rancorous, and personalities the most degrading to literature and to science—such persons, we say, *are* TRAITORS *to their* profession."

I am your obedient servant,
ONE OF PROFESSOR GRANT'S
"EVIL-DOERS."

ANALYSES AND NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

First Lecture of the Course on Comparative Anatomy, delivered in the Theatre of the Royal College of Surgeons [in Ireland]. By A. JACOB, M.D. one of the Professors of Anatomy and Physiology.

THE introductories of Dr. Jacob have for some years been famous in the Irish metropolis for their remarkable homeliness of phrase and manner; the topics, too, discussed in them, have generally made them quite a *bonne bouche* for the reporters of the Dublin newspaper press—a medium through which we have been hitherto obliged to form our opinion of the Doctor's merits. We have him now, however, coming forward, of his own gracious accord, on a subject of practical and general interest, which will enable a much larger class of readers to estimate his proper worth. He would be more at home, we know, on his favourite subjects of apprenticeships, and the exclusive virtues of his own wonder-working College; but until he gratifies us (as perhaps he will on some future day, should we be duly grateful for present favours,) with a published introductory—a *chef-d'œuvre* in his very best style, on his own peculiar theme—we suppose we must only be thankful for that which he has here condescended to give us—his First Lecture on Comparative Anatomy.

The lecture is short and sweet, and what is better, it speaks for itself; it requires few glosses or comments from us to render its beauties appreciable. We shall therefore, as we cannot give the *whole* production, point out such parts of it as greatly excited our admiration in the perusal.

The burthen of this unique lecture, we should observe at starting, is to shew the importance, and to deplore the neglect, (in Ireland—or rather in the Irish College of Surgeons), of comparative anatomy. The cause of this neglect is briefly and gracefully hinted at in the following passage :—

" Ask me," says Dr. Jacob, " what retards the cultivation and diffusion of comparative anatomy. I dare not answer. Suffice it to say, the old story is more comfortable, more suitable. *Young gentlemen, attend to what I say.* Keep pace with the times; be not satisfied with equality or mediocrity, aim at excellence, and above all things *bear in mind the fable of the fox without a tail!*"

In order to understand this elegant allusion, it should be known that among the Doctor's hearers, at the lecture, were the President and members of his College; these are the *foxes without tails.* Indeed, he addresses them directly, and with more apparent respect, in the opening sentence :—

" As many of those to whom I now address myself are unacquainted with the nature and objects of the lectures which I am about to deliver, I will [shall], Mr. President, with your permission, and that of the other members of the College who have honoured me with *their* presence here to-day, explain briefly *their* purpose and probable consequences."

The lecturer then proceeds to show how, by the cultivation of comparative anatomy, " a spirit of inquiry and *exercise of mind is* [are] *elicited* among the more *talented* students, which the less interesting study of the details of human anatomy might leave *dormant.*"

We find him next taking occasion to remark, that there ought to be some alteration in the names of these studies. " The term comparative anatomy," says he, " has been used in contradistinction to the term human anatomy. Let us in future call the former *anatomy*, and retain *the epithet* for the latter." From which we infer that he wishes to call human anatomy " comparative;" but we will not be positive as to his meaning, for he has left it *in ambiguo*, *which* epithet he would retain.

Consistently with his object, he wishes to impress upon his hearers, that the study of man's structure has nothing peculiarly surprising in it, compared with that of *other* animals. " It must," says he, " never be forgotten, that he (man) enjoys *no superiority of organization* over the mass of his fellow-animals; *his distinction is his* MIND." But what the lecturer means by the *mind* of man is explained in the next paragraph; there we find him saying—" His great BRAIN, with its deep convolutions, extending over the cerebellum, constitutes, as I have already observed, *his proud and characteristic distinction.*" From which we conclude that Dr. Jacob is a professed materialist.

Although, however, according to our lecturer, man has no superiority of organization over other animals, except in his brain, yet pains are taken in the two subsequent paragraphs to show, that the human animal has " certain peculiarities of organization not to be overlooked." And what thinks the reader is the first peculiarity of man selected by the lecturer? " He is *the only biped,*" says Dr. Jacob; upon which we could not help thinking that the Doctor was strangely forgetful of the fact known to every school-boy, of Plato's confusion when the cynic introduced a cock into the academy. But Dr. Jacob repeats, that man is " exclusively a biped being"—" his foot being beautifully arched, jointed, and tied, to sustain the whole weight of the body projected vertically upon it, and with *fingers* admirably modified to adjust it to the surface"—an assertion which, we confess, rather startled us, when we remembered how beautifully arched is a cock's foot, and how well calculated to support his body, and with " fingers" admirably modified to adjust it to the surface even of a perch; in which last peculiarity, by the way, the cock has a decided advantage over man.

Dr. Jacob allows that there is some superiority in the mechanism of the human ear, " although not to be demonstrated" (!); and he admits that man possesses the power of communicating ideas by distinct articulate sounds. " Others of the class (mammalia) are provided with larynx, soft palate, tongue, and lips; but whether from inferiority of organic structure, function, *or mechanism*, none can exercise them except *this individual.*" The Doctor, it may be noticed, is not very precise in his terms; by this "individual," he means of course this species, or this race.

Having thus taken due pains to contradict himself in all he said about man having no superiority of structure over his " fellow animals," he proceeds to take " a hurried glance at the skeleton," and particularly that part of it which constitutes "the resisting sides of the *respiratory pneumatic* machinery;" and he adds with singular emphasis, that nobody but "the man 'whose soul lives an alley' *(sic)* can view" this bony structure in all the classes of vertebrated animals, "without enthusiastic admiration." We perfectly agree with the learned Doctor; but we are curious to know whence he borrowed that apt and beautiful quotation.

There is an elegant disregard of orthography, and indeed of grammar generally, throughout this lecture; for examples of which we regret we have not room: incidentally, however, some of them may have been noticed in the preceding extracts.

After noticing the skeleton, he dwells on the organs of digestion; observing by the way that "gramenivorous" birds have a "*mascerating*" crop and a grinding gizzard. Such a crop, no doubt, must be very proper for such birds. In calling attention to the alimentary canal, he says that there are many interesting peculiarities about it, of which "the cellular apparatus in the sturgeon, and the spiral valve in sharks, affords (afford) examples." But this is not all. "The cœcum and appendix vermiformis in man, is (are) probably rudimental, in some gramenivorous animals *it is* an organ, second, perhaps, only to the stomach in importance: *see* the great paunch it forms in the horse, and the tortuous cavity with spiral valve in the rabbit."

"The study of the human skeleton," the Doctor further observes, "and the description of each particular bone, has [have] heretofore been carried to a degree of minuteness frequently unnecessary, and sometimes useless." Yet he shews how useful the study of osteology may be made in the investigation of fossil remains. Cuvier is noticed, in reference to this subject, with a most eloquent brevity. "He commenced *life*," says Dr. Jacob, "as tutor to a country gentleman," (we never heard this extraordinary fact before); he died too soon for science, encompassed with *literary* glory, and his monument is the *ossemens fossiles!*" Let M. Pariset, with his Eloge, hide his diminished head after this.

The utility of chemistry is next alluded to as an essential "*preliminary foundation*" for the study of geology; and the Doctor asks, "should not the medical student, therefore, rejoice that those studies which are essential to his professional education smooths (smooth) the way to *the proud distinctions of the scientific world?*"

Botany is next noticed, and it leads to another question. "A new country for his excursions is opened to him, new objects to stimulate his curiosity and rouse his spirit of inquiry are presented to him, and shall he pass by the *one*, or disregard the *other?*" In which we are left in the usual perplexity, which is the *one*, and which the *other*.

The Doctor now draws to a conclusion, after having, as he says, exhausted his "storehouse of arguments;" and certainly the conclusion is not the least remarkable portion of this curious performance. "*Many of you*," says Dr. Jacob to his auditors, "*do not credit one word I have uttered; but when the schoolboys of* 1840 BAA (!) *at your ignorance, you'll recollect what I have said!*" And the following is the elegant parting compliment which the lecturer pays the profession, and more particularly the heads of his own College, in his concluding appeal:—

"*Young gentlemen, these are signs of the times;* they are worthy of careful consideration and reflection. If you choose surgery as a means of livelihood, undertake the study of it as a profession, and bring to it the feelings, habits, and ambition which distinguishes (distinguish) the members of other learned professions. If you would undertake it as a trade, I beseech *of* you to desist; you can easily find an *honester*, more *respectable*, and more lucrative calling,"—viz. than surgery.

In another part of the lecture he calls, as we have seen, the seniors of the surgical profession in Ireland (allegorically, of course), "foxes without tails." In a letter published some time since in a worthy contemporary of ours, Dr. Jacob called the same persons "a parcel of unprincipled scoundrels:" and now we find him telling them to their faces, that it is easy to find an honester and more respectable calling than theirs. It must certainly be confessed that there is no great courtesy in the Doctor's bearing towards his professional brethren.

But we said he concluded with a compliment: we should rather say that he finishes with a blunder. His last sentence is this:—

"To-morrow, I will proceed with the

inquiry respecting the *fossil remains* of the mammalia, *commencing with* MAN."

He might as well, in our humble opinion, commence with what Tristram Shandy ends in,—"a cock and a bull;" for either of these animals may possibly have its fossil representative, but every tyro knows that *there is no fossil man*. We wish we had some account of the second lecture, just to see what the professor of fossils made of the subject of a petrified *homo*.

But enough of this: we have now been amused sufficiently, and we are obliged to Dr. Jacob for the pastime he has afforded us. We must not, however, part from the Doctor without telling him "a bit of our mind;" and that as bluntly as he could himself wish on a similar occasion. If the lecture we have noticed had been published in some of the low Dublin prints, where the Doctor's lucubrations have from time to time appeared, we should have attributed much of its bungling and vulgarity to the ignorance of reporters: but appearing as it does, officially, with the name of the "Professor" attached to it, and published by the bookseller of the Irish College of Surgeons, the case is altered. We need stand on no ceremony, for the publication, we presume, is genuine; and from the deliberate judgment we have been enabled to form of it, we can only say, that a worse introductory lecture in a printed form has never fallen into our hands. It is full of bad reasoning, bad composition, bad grammar, and even bad spelling: and we confess it is the fact of its peculiar badness in so many ways, that has so strongly recommended it to our critical notice.

⁂ *We have again been compelled to give an* ADDITIONAL *half Sheet, for which, however,* NO CHARGE *is made to the reader.*

MEDICAL GAZETTE.

Saturday, November 23, 1833.

MEDICAL REFORM IN FRANCE.

THE proceedings of the French Academy of Medicine are at the present moment full of interest for the profession, not only in France, but throughout Europe. A reform has for some time been loudly called for among our Gallic brethren. The state of medical education, and of the profession generally throughout France, has been felt to be so out of joint, so overwhelmed with abuses, that the government have taken the matter up, and are determined on a complete reorganization. The method adopted by the Minister has been to propose a series of questions to the Academy, on which they have appointed a Commission; and the project that they propose to adopt has already occupied several sittings in the perusal. What order or orders of practitioners ought to be recognized? is the substance of the first question of M. Guizot; and it involves the consideration of whether the humble class of *Officiers de Santé* should be any longer legally countenanced. The reply of the Academy is unfavourable to the continuance of this class; and it is recommended that there shall be throughout the country but one order of practitioners—namely, those who shall be qualified Doctors of Medicine or Surgery. Another recommendation of the Academy is—one, indeed, which is unavoidable if the *Officiers de Santé* be suppressed—to institute three new Faculties in France, namely, in addition to those of Paris, Strasburg, and Montpelier, to establish similar bodies, with equal powers, at Bordeaux, Lyons, and Toulouse.

The adoption of this part of the project, it is expected, will give rise to much murmuring on the part of existing monopolists; but if the plan proposed in an influential quarter be acceded to—namely, that of vesting the power of licensing practitioners, and of conferring degrees, in a board or boards perfectly distinct from the recognized teachers in the several Faculties, it is conceived that much matter for jealousy will be removed. With respect to professorships, there is a proposal which seems very reasonable, and very necessary, in consequence of the frequent and vexatious changes which have from time to time been made in the chairs, owing to political motives; and that is, that their possession shall be permanent, and not subject to ministerial caprice.

There are two other points of great importance contained in the project:—1. The establishment of a regular order of practitioners throughout the departments, to be entitled *Médecins Cantonnaux*, and, in fact, to be put on the same footing as the clergy throughout France. It is supposed that the population will require not less than 15,000 of those *curés* of the body; but the general impression is, that that number will fall short of what is required, particularly if the *Officiers de Santé* be abolished. 2. The institution of certain local tribunals, chambers of discipline, or, as they seem more likely to be called, *Conseils médicaux*, which shall take cognizance of all matters directly pertaining to the interests of the profession, and provide for the due administration of the laws relating to medicine. This is an arrangement that will require great care in its adoption, and much consideration of the extent to which it shall be carried; for in reality, as at present it is to be understood, it must comprehend every thing relating to the medical *morale* of the country.

Secret remedies—a subject seriously submitted to the notice of the Academy, in a special question—are treated by that learned body at much greater length than they deserve. Instead of scouting them at once in the most peremptory manner, the committee enter upon various considerations touching the proper method of disposing of the claims of charlatans.

Among other topics noticed in the project, the question of the propriety of allowing the practice of pharmacy to be combined with that of medicine and surgery, is introduced, and disposed of in the negative. The irresponsibility of medical practitioners in the fair exercise of their profession, and the privilege of silence regarding confidential communications, are two other points which are strongly contended for by the committee of the Academy.

Such are the principal matters embraced in the project of French reform, but we shall be obliged to recur to the subject. The reading of the report, we believe, has not yet terminated, and much discussion is expected when it does. There can be little doubt of the liberality and sound views with which the business of reform is taken up by the Academy; but there being other and rival bodies to be consulted before any definitive arrangement can take place, it is extremely uncertain what the issue of the inquiry will be. It appears that the government have not confined their queries to the members of the Academy only; the Faculty has been also consulted, and that learned body is engaged on a work to be separately submitted to the Minister. Nor is this all; the Medical Association, consisting of the great mass of the practitioners of Paris, have also undertaken to form *their* project of reform. We can only say, that we heartily wish the profession in France a good deliverance. We shall certainly not be inattentive observers of the progress they make; for we look upon the occurrence of those transactions among our neighbours to be as opportune as they may prove profitable, by the immediate example which they afford.

AN ERRATUM —In our leader last week, in speaking of the College of Physicians, we meant to have said—" We suspect it is too late to talk of appointing a committee to revise the by-laws; a better plan would probably be to repeal them altogether, or failing this, to send their charter to the government," &c.; but the words " failing this" were accidentally transposed, and our meaning thus rendered obscure.

RECIPROCAL *PARTIALITIES.*

Rather a vehement letter will be found at page 292 of our present number, on the subject of an address recently volunteered by Dr. Grant, of the Gower-street School, to his pupils, in commendation of the moral and scientific qualifications of Mr. Wakley. So far, however, from taking up the matter as our correspondent has done, we really think the learned Professor is entitled to infinite credit for his candour. Candid it unquestionably is in any man openly to avow that he concurs in the Lancet code of morality, and regards the most respectable part of our profession, including the Dean of his own Faculty, and several of his present and former colleagues, as delinquents who have justly suffered beneath the lash of that virtuous "castigator of evil-doers," as well as in modestly intimating to what class he himself belongs, when he speaks of the kind attention shewn to him by "the rewarder of the good." Our correspondent is at a loss to account for this display, but to us it seems the simplest thing in the world; Wakley finding that sundry schemes, in the shape of Courses on Veterinary Medicine, Galleries of Portraits, Summaries of Foreign Works, &c. &c. had all successively broken down, resolved to try what Dr. Grant's lectures would do for him; and in order to give the speculation a fair chance, had them advertised in Mr. George Robins's very best style. Now the worthy Professor, who is quite innocent on such matters, takes all this literally, and sucking in the praise, like one of his own sponges, attributes it to partiality to himself; and thus, while certain of his colleagues only venture on a little quiet flirtation *sub rosa*, and which they are most anxious to conceal, he makes his declaration openly, and in the fulness of his heart betrays the secret of a mutual attachment between Mr. Wakley and the Gower-street establishment.

That the worthy Editor, to whom any open declaration of this nature must come with all the freshness of novelty, should feel Dr. Grant's reciprocal kindness very deeply, is of course to be expected; and as he can scarcely do more in the way of puffing him at present, we venture to suggest, as a mark of his gratitude (which would be looked upon as a delicate and very pretty compliment), that he should present the learned Professor with an honorary diploma of the Collegium Wakleyanum: or he might even let him have a batch of them at half price, for the benefit of his friends; which Dr. Grant would certainly mention to his class as "another instance of kind attention—he would almost say of partiality—towards the great medical school."

CLINICAL LECTURE

Delivered at the Middlesex Hospital, Nov. 9, 1833,

By Sir Charles Bell.

Gentlemen,—I am happy to meet you here again: I have been so long in the habit of conversing with the pupils on the occurrences of the hospital, that, omitting it, I feel as if something of the day's duties were neglected.

I have here a very short note, handed to me by the house surgeon, but it refers to cases which you yourselves have taken a warm interest in. I am not going to deliver a formal lecture; such, indeed, is not the purpose of our meeting. I shall be of infinitely more service to you by endeavouring to supply you with additional motives for attending to the practice of the hospital, and scrutinizing all you see. Accordingly, I take up the subject of amputation, not for the purpose of entering fully into it, but that I may entreat you not to neglect those cases which suggest to you the great questions of practice. Let us see how far we can profit by those which we have recently witnessed. I beg your attention, in the first place, to the two

Cases of Compound Fracture of the Leg.

Here a man is brought in with the bones of his leg shattered, the integuments torn up from the ankle to the knee; and at once you perceive that this is a case in which the limb cannot be saved. A consultation, however, is held, and it is determined to operate. The operation is performed; and I think about the 70th hour those symptoms which are the precursors of the patient's death, come on. What is the cause of death? Is there any thing peculiar in the original accident? or are we to put the circumstance of the original accident out of our consideration? Is it to be attributed to the operation of amputation? What is there in the operation performed in these circumstances different from the twenty operations of amputation for exhausting diseases, in which you may have seen, that on the very night of its being performed, the patient sleeps quietly and comfortably, and no untoward symptoms arise up to the ninth day?—What is the difference?

The next case is one of compound fracture of the tibia and fibula—the bone sticking out, close to the ankle joint, presenting that appearance which is produced when the bone is fractured by a man falling from a height perpendicularly upon the sole of his foot. A consultation is held, and it is thought proper to attempt saving the leg. Here the bone protrudes through the integuments; the integuments are inverted, and are tight round the end of the bone; the portion of bone is like a button in a loop, and we are under the necessity of dividing the edge of the skin to release it. After all, the bone cannot be reduced: the house surgeon tries, the assistant surgeon tries, the surgeon of the week attempts it, and he finds it necessary to employ his saw, to take off a portion of the bone, and so reduce it Now I beg you to mark this, which is a case that will occur to you over and over again in practice. When you first come to the patient, the projecting bone, the torn integuments, the twisted foot, indicate the danger of the patient; but when, again, every thing is put in its place—the foot is in its just position, the integuments found to be really, after all, not much torn:—looking to it then, you would say, "Of course this is not a case for amputation." Well, an attempt is made to save the limb. Observe what happens;—mark what danger the patient incurs in this attempt. We shall say nothing here of convulsions or tetanus; we shall say nothing of the extensive suppuration that must in the most favourable circumstances take place. But you have seen what actually happens: first shivering, then fever, then a blush of redness on the wound, then an erysipelatous inflammation extending up the limb and along the outside of the thigh: now the patient's tongue is dry, the powers of life run low, and you lose him.

Compound Dislocation of the Ankle.

The third case is a compound dislocation of the ankle. Here is an older man than the others. It is at the christening of a child that he gets a little tipsy; coming down stairs he falls, and he is brought into the hospital, with three inches of the bone sticking out, on the inside of the ankle; the fibula is consequently broken, for you know that the tibia cannot come off the astragalus without the fibula receiving the weight of the body; the apparatus of the joint is broken up; the ligaments and tendons are strained or torn. Looking to the condition of the patient, and to the condition of the wound, taking into account all the circumstances, it is resolved, in consultation, that he shall suffer amputation. Now, gentlemen, you have just visited the patient with me, and your sympathies are here enlisted in the question. Lectures are good; but how poorly they claim attention, compared to the interest you must now feel to belong to this vital question. You find that on the third day, almost on the same hour in which the same symptoms came on in the former case, there is vomiting of green matter, that his pulse is rapid, his tongue dry, and he is in indescribable anxiety. He is treated properly with calomel and opiates, a stimulating cataplasm applied to the stomach, &c., and he gets over the severity of the attack; but still he is in the most precarious condition. If he survive, which is very doubtful, it will not be owing to better treatment than in the other cases: there is only this difference, that the operation has been done on the leg instead of the thigh; and the operation being performed below the knee, instead of above it, there is less of that sort of undefinable injury which takes place from the lopping off a limb from the body!

These are the sort of cases that you are to attend to, and which will be of use to you at a further advanced period of life. I can conceive you ten, fifteen, nay, twenty years older, rich perhaps, and prosperous, and with a great deal of practice; and still you will be calling these cases to your recollection, for the questions arising out of them will occur again and again. You will then, perhaps, be heard to say—I recollect about the year 1833, yes, it must have been that year, for I was then a student, and it must have been early in the season, for it was amongst the first cases that I observed, and it was under Sir Charles Bell, who, with all his failings, was particularly anxious about his patients,—in one case the limb was taken off, and the patient died; in another an attempt was made to save the limb, and this patient died; a third suffered amputation, and precisely the same symptoms came on, and he also died.

It will happen, gentlemen, that in all your after years you will find your conceptions taking a shape by the impressions you are now receiving; and therefore I am anxious that they should be correct as well as powerful. I hope that these three cases will make a due impression on your minds, and that you will be prepared for the further consideration of other circumstances which belong to this subject, as the opportunities may occur during the season. I am afraid, with whatever assiduity you attend to the facts, with whatever ingenuity you may enter upon a train of reasoning concerning them, you will feel, as I do now, and as every conscientious man must, that the question as to the propriety of amputation is always one of great difficulty and anxiety. From these cases you learn the danger of the attempt to save the limb, and also the danger of immediate amputation. There is a question which we may afterwards agitate, the proper *time* for amputation; but you see that when the operation is performed on the afternoon of the day of the accident, there is still extreme danger—that is, if a man in a condition of health, or who, but for such an accident, would have continued well, suffers amputation, these formidable symptoms come on at a certain period, which are followed by death. The only conclusion that we can at present draw from this is, that we may, in some cases, remove the limb, and yet avoid much of the shock of the formal operation of amputation. To cut across the limb, either above or below the knee—that is, in the fleshy parts of the limb—is not only lopping off, as it were, a greater part of the *whole*, but it is to cut through a much larger portion of integument, muscle, and nerve, than if you separate the remaining part at the open wound near the ankle, and smooth the bone. Remember, this is a question; it is not the rule of surgery; it is merely suggested to me by the repetition of such occurrences as you have witnessed. I may mention here, as connected with this subject, what I have done in mortification of the foot and leg. The patient's constitution and powers of life not being in a condition for him to suffer amputation, I have in a manner favoured the separation which nature had begun, instead of performing the regular operation above the knee, by detaching the parts by little and little, applying antiseptic poultices, and finally sawing through the bone; and thus, by avoiding the shock of amputation, have saved the patient. There is a resemblance in the circumstances, although the parallel be not complete.

Amputation at the Shoulder-Joint.

The next case on which I shall offer a few remarks I must beg you to notice, for a different reason,—I mean its rarity. You will, probably, in the course of your life, if we continue to enjoy peace, at least, have very little opportunity of seeing or performing the operation of amputation at the shoulder-joint. The patient is 47 years of age: he received a blow on the arm, a little above the insertion of the deltoid muscle, from the blunt edge of a piece of iron. It appears from the slight note I have handed to me that "he was treated for dislocation." You know, I suppose, how much that expression means. If a man is supposed to have his shoulder dislocated, what pulling, and fingering, and bandaging, does he not undergo?—what injury is, consequently, inflicted, in addition to the accident? Well; but it appears that "he recovers all this." Not so; he does not recover; on the contrary, this is his condition:—There is a great swelling, just occupying the space which you describe anatomically as embracing the deltoid muscle: it is a large elastic swelling, with the feeling of undulation from fluid contained within it.

A consultation is called, and I am to tell you what passes through the minds of the surgeons. What is this swelling? *It may be an abscess*; for it immediately occurs to the consultants, that in a strumous or scrofulous constitution, when there is a blow, or strain, or injury of any kind, there follows a scrofulous action or inflammation, and by and by an abscess; and the symptoms are obscure. That is to say, there are some constitutions so prone to the chronic strumous action, that abscess forms where there is slight injury, and there are no inflammatory symptoms. I remember a case of this kind; and I confess I was a good deal puzzled about it. The patient returned, and I recommended, or rather enforced the recommendation which she had received, to have the swelling shampooed. The result was, that she came back saying that she was amazingly relieved: the fingering, the pushing, the kneading, during the process of shampooing, had given greater liberty to the matter, and the pus originally formed below the deltoid, made its way from under that muscle, and the full motion of the arm was restored. Still there was something obscure about the case: at last, inflammation of the integuments took place, the abscess pointed, the matter burst out, and it was obviously a strumous abscess. I need not add, that this was early in my practice. But with respect to the present case, the next thing which suggested itself to our minds was, the possibility of the tumor being a *disease of the great bursa.* You will remember, that between the head of the humerus and the projection of the acromion scapulæ there is a large bursa, and that bursa is sometimes the seat of inflammation and suppuration; or it may contain a collection of fluid resembling its proper secretion. I remember the case of a man on whose shoulder a great beam of wood fell, and just such an appearance was presented in him that we have seen in this patient; but in the former, it proved to be a collection of matter formed in the bursa by chronic or strumous inflammation, excited by the injury; and it was cured by a seton. The most serious question which suggested itself in the present case was, whether the complaint was of the order of those diseases which are described as *fungoid.* To ascertain this, the tumor was punctured; but no brain like or fungoid matter escaped. However, on the whole, it appeared most probable that there had been fracture, and consequent disease of the bone, with abscess around the joint. This, at least, was my idea; for on moving the arm, it appeared that the bone did not revolve upon the articulating extremity, but on a point a little removed from the extremity, which implied that the humerus itself was implicated, and that it was either broken or softened. It was thought, if there be suppuration, it is probably in the centre of the bone and around the joint, and there is no hope from treating the disease by evacuation of the matter; because there must be a carious bone in the centre of the abscess. Again, to take out the head of the bone, in the manner in which I have recommended it to be done for some cases of gun-shot wound, would be to leave too much surrounding disease. Amputation was, therefore, determined upon—amputation at the shoulder joint.

Now a few words on this operation. In amputating at the shoulder joint, you take advantage of the fleshy mass of the deltoid muscle, and out of it form the flap. Grasping the integuments and muscle, you so use your long amputating knife as to divide the deltoid near to its insertion, and raise it up bodily by one sweep, so as to leave it at its attachment above—that is, at the whole extent of its origins. You may do it in such a case as this, by managing the knife so that you go close to the walls of the abscess, or to the diseased part; and thus, by an easy dissection, raise up the deltoid, and preserve it to fall down on the face of the wound. But considering the operation as adapted to other cases, you must recollect that, in amputating, you have to save the skin to cover the muscles, and to save the muscles to cover the bone; and you must modify this acknowledged rule to the particular case. In amputating at the shoulder-joint, you may have to cut and carve in different ways, according to the nature of the disease, or the character of the wound. It is not always that you can thus raise the deltoid; but you must find a portion of integument on one side or the other, to make your flap fall neatly in front of the wound. However, in general, the flap should be formed of the deltoid muscle.

The next subject of consideration is the compression of the artery. The patient being placed in a chair, the assistant stands behind him, and with his thumb pressing behind the clavicle compresses the subclavian artery. By all means adopt this precaution, but do not trust to it for arresting the hæmorrhage; for if you do, you will in some cases be most grievously mistaken. I have seen the operation often performed, and have performed it myself; and I have seen the following occurrence, which I beg you to notice, and to take the proper means to guard against. While the patient sits stoutly and resolutely to suffer the operation, the pressure behind the clavicle is sufficient to stop the pulse; but from the loss of blood he presently sinks down, and then the artery gives out its blood in a torrent. If the patient be not properly supported, and he thus sinks down, the pressure amounts to nothing; you must take care, therefore, to hold him up, so as to maintain him against the pressure. The circumstances are not a whit better when the patient lies horizontally; the slightest jerk or elevation of the shoulder, so natural to a man suffering such severe pain, raises the assistant's thumb, or compress, from the artery. But I am bound to state to you my opinion distinctly, that the pressure above the clavicle is not to be depended on as an effectual means of stopping the bleeding. I have seen the compression attempted, not by a young man, but by an elderly, experienced, and powerful surgeon, and when the artery was cut there was a full gush of blood from it. It is one thing to compress the artery so far that it stops the pulse; it is quite another thing so to compress it that the blood shall not pass along it. I said to Mr. Arnott, who was the operator, we need have no anxiety about this bleeding; for I will be bold to say, that there shall not a drop of blood more be lost here than in a common amputation, if so much. Accordingly I undertook the office of stopping the hæmorrhage. The manner of doing it is simply by grasping the integuments round the shoulder during the formation of the flap. By thus grasping the whole, you stop the collateral vessels; but observe, that by this you do not stop the principal artery. As soon as the flap is raised, the capsule of the joint opened, and the head of the bone pulled down a little, the thumb is to be put into the capsule, between the head of the humerus and the glenoid cavity; and having the four fingers of the same hand in the axilla, the axillary artery can be grasped along with the integuments, and made perfectly secure, whilst the operator completes the incision on the lower part. During all this time the assistant-surgeon compressed the artery above the clavicle; but the operator requesting to see the artery more distinctly, I relaxed my grasp, and let a jet of blood escape, which sufficiently proved that the pressure above the clavicle in these circumstances was of no value. It is said that this holding of the artery between the fingers is of little consequence; but I consider it to be of the utmost consequence. If it be said, "When the artery is throwing out its blood I put my fist against it," I ask what is to be done next? When do you take away your fist? Because, when you do remove it from the face of the wound, you will have a full stream of blood. I hope, gentlemen, that you have not yet to learn, that the nearer to the heart the loss of blood takes place, the greater is the effect upon the constitutional powers. A person will lose pounds of blood without experiencing any bad effects, if it come away slowly by the extreme vessels; whereas a few jets of blood direct from the trunk near the heart, will cause him to faint in an instant; and therefore I say that it is of the greatest possible consequence that the main artery be secured in this operation. It may not be of the same importance to a man in perfect health and strength; but I very well recollect seeing a case where a ball had passed through the head of the humerus, and then struck on the ribs, forcing them on the lungs. You can imagine how much the man was reduced, what a miserable object he was, and by what a slight tenure he held life. Now in that case, had the patient lost only a little blood he might have survived; he would not have sunk, as he did, from the effect of the operation; there were one or two full jets from the vessel before it could be caught or tied; and in my opinion it was in consequence of this that his strength failed, and that he sunk almost immediately. In short, it will not do to pooh! pooh! the matter down, and say it is of no consequence; for a few ounces of blood is of the utmost importance in these circumstances. At the same time that the artery throws its blood out, it retracts amongst the loose cellular texture of the axilla, and you cannot see its mouth. You must recollect that the artery, being here surrounded by nerves, it will not do to plunge the tenaculum deep into the chasm from which the blood flows: the artery must be picked out and tied neatly; and to accomplish this, it is positively necessary that the assistant shall have the command of the vessel.

Well, this operation, I need not say, was performed with considerable anxiety in all our minds; and that is a great merit; for I cannot find words to express my detestation of what is called "bold surgery." It was done with care and with neatness; and I have only to observe, that it has been completely effectual. The man has suffered very little, and is now doing well, the disease having proved to be an injury from a blow, followed by destruction of the bone, with suppuration within the capsule of the joint and around it.

[The Lecturer proceeded to make some observations on aneurism and the ligature of arteries; but as he was interrupted, and afterwards resumed the subject, we shall give the lecture entire in our next number, rather than divide the subject.]

ABSTRACT
OF A
CLINICAL LECTURE,

DELIVERED BY

JOHN BURNE, M.D.

Physician to the Public Dispensary, Lecturer on the Practice of Medicine at the Medical School, Aldersgate-street, &c.

Fibrous Tumors of the Uterus, Ascites, Peritonitis, and first stage of absorption of the Kidney.

GENTLEMEN,—The corpse which is here before you is that of one of our Dispensary patients, which the husband has with great good sense permitted to be removed to this theatre* for the purpose of examination, as well as to afford me the opportunity of demonstrating to you the morbid parts. This permission on the part of the husband may be hailed as one of the good effects of the Anatomy Bill, and as an earnest that the Bill, which has hitherto worked well, will by and by furnish abundant materials for the dissecting-room.

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* The body was taken to the Medical School, Aldersgate-street, for two days, after which it was returned to the husband's residence for interment. Morbid dissections at the houses of the deceased are of necessity performed with too much haste to be very instructive; and at hospitals the custom of not opening the body till the pupils are assembled, and the expedition with which the dissection is then obliged to be gone through, permits only the exhibition of morbid changes in the gross. If, previous to the exhibition of the diseased parts, an hour or two were bestowed on the dissection of them, and the various lesions traced and accurately made out, pathological demonstrations would be infinitely more profitable and satisfactory;

The patient, a female, was about 50 years of age, and had been under my care for twelve or eighteen months past. When she first presented herself at the dispensary, there was an evident enlargement of the abdomen, which, by examination, was found to arise from the presence of a fluid, and of a hard and rather large tumor in the hypogastric region: her general health was impaired, and the body beginning to emaciate. Medicine had little effect upon her complaints; the fluid accumulated, distended the abdomen to a great degree, and, by its pressure upon the viscera and diaphragm, gave rise to so much inconvenience as to render paracentesis unavoidable. The operation was performed in the linea alba, and a quantity of fluid of a brownish colour evacuated. By this she was much relieved, and recovered from the operation without any untoward symptom.

The dropsy returned as is usual, and, the abdomen having again become greatly distended, paracentesis was resorted to a second time. But the operation in this instance was succeeded by peritonitis, which, with vomiting and obstinate constipation, persisted during five or six weeks, when she sunk emaciated to the last degree.

Sectio cadaveris.—In the dissection of the morbid parts which were already prepared for demonstration, I was kindly assisted by my colleague, Mr. Skey.

The parietes of the abdomen being turned back, you see a large *tumor* arising out of the pelvis, and occupying the hypogastric region. The figure of the tumor is pyriform, and unequally rounded or lobulated; its superior, posterior, and lateral surfaces are covered with healthy shining peritoneum, and are free; while the anterior is firmly adherent to the pubes and recti muscles, the peritoneal covering of the tumor passing from its superior surface direct on to the abdominal parieties, instead of dipping into the pelvis to be reflected over the posterior surface of the bladder. On the sides of the tumor are to be seen the ovaries and fallopian tubes, bearing the same relative situation to the tumor as they do to the uterus about the fifth or sixth month of pregnancy; thus shewing that the womb is involved in the disease. At this stage of the dissection, neither Mr. Skey nor I could discover any trace of the bladder until the anterior surface of the tumor was detached from its connexions, when the bladder was discovered enclosed behind the pubes, its posterior part having been deprived of its peritoneal covering by the gradual ascent and enlargement of the diseased uterus. Before I detach the tumor from the pelvis, I wish to direct your attention to the immense plexus of blood vessels on either side of the neck of the tumor, which shew the vast supply of blood received by the womb from the spermatic and hypogastric arteries, and serve to account for the rapid and exuberant growth of several forms of uterine disease.

Now that the tumor is detached, its pyriform shape is more apparent, the size of its inferior part or neck being sufficient to fill up the cavity of the pelvis. By dissection, the whole of this mass of disease is seen to consist of round or flattened tumors, of various size from an orange to a horse chesnut, growing in the proper tissue of the uterus between its external serous and internal mucous membrane, and connected by dense cellular substance; so that these tumors can be dissected out or peeled off, as you observe, without injuring the proper tissue of the womb. By the growth of these tumors, the dimensions of the uterus are enlarged, as you perceive, though its substance is not altered from its healthy state.

The *tumors* themselves are hard, and their cut surface exhibits a dull white or yellowish coarse fibrous structure; they are organized, have no disposition to ulcerate or to soften, are free from any malignant character or tendency, and are the product of a lesion of nutrition. The manner, therefore, in which they affect the health of the patient is by the irritation which their growth and size occasions in the uterus and contiguous viscera. These masses were called by Baillie *hard white tubercles*, but as according to modern pathology the term tubercle is restricted to adventitious productions which are not organizable, they are now designated *fibrous tumors*.

The relation which these tumors bear to the tissue of the uterus is characteristic of the difference between innocuous and malignant morbid growths. The tissue of the uterus is here seen to remain distinct, unchanged, and to be merely pressed aside and distended by these various masses; while malignant tumors destroy the organization of the tissue in which they are developed, and involve in their peculiar disease every neighbouring structure and organ.

The next point of interest in this dissection is the effect of the peritonitis, as marked by this general increased vascularity of the membrane, by this effusion of fibrine and albumen, and by these numerous adhesions. This effusion, the product of the inflammation, extends over the small intestines, the colon, the folds and root of the mesentery and mesocolon, the anterior and posterior surfaces of the stomach, the surfaces of the liver, diaphragm, and anterior parieties of the abdomen, but not over the tumor, nor into the pelvis. Inflammation, when it spreads over the continuous surface of a membrane, as in this case, is said to do so by the *sympathy of continuity:* a finer example of which cannot be shewn to you. These numerous adhesions which have taken place between the convolutions of the intestines, between the colon and the liver, between the liver and the diaphragm, &c., are so many examples of the effused fibrine having become organized cellular tissue, which, as it is exceedingly tender and easily torn through, is of recent formation, and no doubt the consequence of inflammation from the wound of the peritoneum in the last operation.

The frequent recurrence of peritonitis after tapping induces me to recommend you to defer the operation, in all cases of abdominal dropsy, as long as the state of the patient will permit: by tapping, you can only remove the effect of the disease, and relieve the patient from the weight and distention caused by the fluid. The disease, the cause of the dropsy, is not influenced by the operation; and the fluid collects again more rapidly than in the first instance. Almost all the patients affected with abdominal dropsy, whose death I have witnessed, have fallen victims to the operation at some period or other: they may have been tapped twice or twenty times, but sooner or later the operation has excited a fatal inflammation of the peritoneum, as it did in the instance before you. Delay the operation, therefore, until the sufferings of the patient leave you no alternative but to have recourse to it. I have thought that the peritonitis has been excited on some occasions by the pressing the abdomen here and there by the hand, from an unnecessary anxiety to drain off the whole of the fluid; this pressure having caused the extremity of the canula to irritate and injure the intestinal peritoneum, and so to excite inflammation.

The last organic change worthy of your attention is the *partial absorption of the left kidney*, which has arisen from the pressure of the tumor upon the corresponding ureter. The tumor pressing upon the left ureter in its course along the pelvis to the bladder, and obstructing the passage of the urine from the kidney, has produced what I now shew you—*dilatation of the ureter through its whole length, and dilatation of the pelvis and of the calyces of the kidney;* and the pressure of the urine retained in these channels has so acted upon the kidney itself, as to *flatten the mammillary processes*, and cause absorption of its substance to a considerable degree. Had this pressure continued for some months longer, the kidney would have been almost entirely absorbed, the calyces and pelvis immensely distended, and that pathological condition, the *sacculated kidney*, formed.

Having now, gentlemen, demonstrated to you these various organic changes, what conclusion are we to arrive at as to the cause of the dropsy, which proves to be not ovarian or encysted, but of the peritoneal cavity, constituting ascites? There is no reason to attribute it to the fibrous tumors of the uterus: one cannot see in what manner they could induce such a preternatural effusion into the abdominal cavity. Nor can it be attributed to the peritonitis, that inflammation having supervened on the second operation; and as the substance of the liver is sound, the only apparent cause to which the dropsy can be ascribed is the obstruction to the passage of the urine from the left kidney, and the partial absorption of this excretory gland. This may possibly have determined the preternatural effusion into the peritoneum; but as this state of the kidney frequently exists without dropsy, I should hesitate to regard it as the decided cause in the present instance.

WEEKLY ACCOUNT OF BURIALS,

From BILLS OF MORTALITY, *Nov.* 19, 1833.

Age and Debility .	26	Gout . . .	2
Apoplexy . .	10	Hæmorrhage .	2
Asthma . .	11	Heart, diseased .	3
Cancer . .	3	Hooping-Cough .	10
Childbirth . .	2	Inflammation .	15
Cholera . .	1	Bowels & Stomach	12
Consumption .	54	Brain . .	5
Constipation of the Bowels . .	1	Lungs and Pleura	18
Convulsions .	36	Jaundice . .	2
Croup . . .	2	Measles . .	4
Dentition or Teething	6	Mortification .	5
Diarrhœa . .	1	Paralysis . .	3
Dropsy . .	16	Small-Pox . .	8
Dropsy on the Brain	13	Sore Throat and Quinsey . .	1
Dropsy on the Chest	3	Thrush . .	2
Epilepsy . .	1	Tumor . .	3
Fever . . .	3	Unknown Causes	41
Fever, Scarlet .	10		
Fever, Typhus .	3	Stillborn . .	10

Increase of Burials, as compared with the preceding week . . . } 66

METEOROLOGICAL JOURNAL.

Kept at EDMONTON, *Latitude* 51° 37′ 32″ N.
Longitude 0° 3′ 51″ W. *of Greenwich.*

Nov. 1833.	THERMOMETER.		BAROMETER.	
Thursday . 14	from 25	to 40	30·11	to 30·09
Friday . . 15	29	42	30 02	29·90
Saturday . 16	31	49	29 82	29 89
Sunday . . 17	40	51	30·03	30·11
Monday . . 18	42	54	36 14	30 21
Tuesday . . 19	45	55	30 18	30 12
Wednesday 20	34	51	30 04	30·00

Prevailing wind, S. W.
Except the 14th, cloudy.

CHARLES HENRY ADAMS.

W. WILSON, Printer, 57, Skinner-Street, London.

LIBRAIRIE DE H. DUMONT, A BRUXELLES.

DÉPÔT POUR L'ANGLETERRE,

CHEZ DULAU ET COMPAGNIE,

LIB., 37 SOHO SQUARE,

A LONDRES.

CATALOGUE.

LIVRES DE MÉDECINE.

ANATOMIE ANALYTIQUE, NERF GRAND SYMPATHIQUE, par Manec; feuille coloriée grand in-folio, dessinée par Jacob (Paris).

Parmi toutes les planches anatomiques qui ont été publiées jusqu'à ce jour, aucune ne représentait d'une manière claire et simple l'ensemble des ganglions du *grand sympathique*. Aussi M. Manec vient-il de rendre un véritable service à la science, en présentant réunis en un seul tableau tous les nerfs de ces ganglions et les plexus qu'ils forment avant de se distribuer aux divers organes. sh. 8.

ABRÉGÉ PRATIQUE DES MALADIES DE LA PEAU, d'après les auteurs les plus estimés, et surtout d'après les documens puisés dans les leçons cliniques de M. le docteur Biett, médecin de l'hôpital Saint-Louis; par MM. Alphée Cazenave et H. E. Schedel, docteurs en médecine, anciens internes de l'hôpital Saint-Louis, etc., etc.; seconde édition, revue et augmentée. 1 beau volume in-8°, avec planche coloriée. sh. 8.

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SATURDAY, MARCH 1, 1834.

LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY;

Delivered at the London Hospital,

BY FRANCIS H. RAMSBOTHAM, M.D.

LECTURE XXI.

LABOUR.

Classification.—Almost every systematic writer on the subject of midwifery, since the time of Hippocrates, has adopted some classification of labours, accordant with his own views. The great father of medicine himself was contented with two classes—*natural*, when the head or breech presented; and *preternatural*, when any other part of the child offered itself. Smellie, to this simple arrangement, added a third class—*laborious*; and in some degree changed the meaning of the terms used by Hippocrates. He calls that a natural labour in which uterine action alone accomplishes delivery;— that case laborious, in which manual or instrumental means become necessary;—and that preternatural, when the birth of the trunk precedes that of the head. Baudelocque also divided labours into three classes—*natural*, comprehending all cases which are terminated by the natural powers, whether the head, breech, or inferior extremities present; *preternatural*, when hæmorrhage, convulsions, or other accidents, occur; and *laborious*, when instruments become necessary to terminate the delivery. Dewees, after passing a high compliment on Baudelocque, follows his arrangement, but divides instrumental deliveries into *two classes*—the one accomplished by instruments, which do no injury either to the mother or child; the other by cutting instruments, applied either to the fœtal or maternal body. Blundell makes five divisions—*natural*, when the head presents, and the whole labour is terminated in twenty-four hours; *preternatural*, when some other part of the child is the presenting part; labours with *flooding*; *laborious*, when instruments are required; and *complicated* or *anomalous*, when some extraordinary symptoms are superadded. Ashwell makes three—*natural*, *difficult*, and *flooding*. Merriman arranges all labours under two classes only—*eutocia* and *dystocia*; but in the second he introduces fifteen orders, embracing every circumstance that can in any way render the case tedious, difficult, or dangerous. Burns multiplies the classes to seven—*natural*, *premature*, *preternatural*, *tedious*, *laborious*, *impracticable*, and *complicated*; all of which terms are sufficiently plain to convey their own meaning. Denman's arrangement, which I consider by far the best of any that has yet been attempted, consists of four classes—

1st, NATURAL,
2d, DIFFICULT,
3d, PRETERNATURAL,
4th, ANOMALOUS or COMPLEX.

This order, so far as the classes are concerned, I shall strictly adhere to; but I shall make some little alteration in the subdivisions.

First class.—The first class, or *natural labour*, admits of no subdivisions; and we may define that case to be such, in which the head of the child presents,—in which not more than twenty-four hours are occupied from the commencement of true uterine action to the termination of the process;—in which nothing extraordinary, nothing untoward, nothing dangerous, nothing perplexing, occurs throughout the whole conduct of the case. And that labour is deemed natural, in the acceptation of the term which I offer, if any part of the head present, even although it be the forehead or face itself, provided all the circumstances enumerated concur.

Many authors, indeed, have regarded natural labour as much more contracted in its features. Thus Mauriceau considered it essential that the fœtus should be living; Burns, that it should have arrived at intra-uterine maturity; Baudelocque, that the vertex should present; Merriman, Burns, and Campbell, define it a vertex presentation, under which the face turns into the hollow of the sacrum, before expulsion. There is some difference also in the limit, with regard to time, proposed by different writers: thus Dr. Cooper restricts the period to twelve, and Power to six hours.

Second class.—The second class—*laborious*—is divided into two orders,

A, Lingering.
B, Instrumental.

To constitute this class, also, it is necessary that the head should present; and the first order is defined to be those labours in which, under a head presentation, more than twenty four hours are occupied from the commencement to the termination of the case; but in which there is no necessity for instrumental interference, and during the progress of which no dangerous symptoms arise—nothing calling for anxiety occurs, except the unusual lapse of time.

The second order of this class—*instrumental*—embraces all cases of head presentation which require to be terminated by instruments. It includes two species—

a, those cases which can be managed by the use of instruments perfectly compatible both with the life of the child and of the mother; as well as the safety and continuity of the mother's structures. Such as are terminated by the forceps or vectis.

b, those in which we are compelled to have recourse to instruments incompatible either with the life of the child, or with the safety and continuity of the mother's structures—labours, indeed, which are completed by cutting instruments.

Of this latter species, again, we have two varieties—

α, some in which the instruments are applied to the fœtal body; as when the case is terminated by the use of the perforator.

β, those in which the mother's structures are divided by the scalpel, or some such instrument, as in the Cæsarean or Sigaultean operations.

Third class.—The third class—*preternatural labours*, or, in common language, *cross births*—includes all cases in which any other part of the child's body than the head presents—the breech, feet, knees, back, belly, sides, shoulders, arms, or hands. In this class we recognize two orders—

A, all those cases in which the lower end of the oval formed by the doubled fœtal body offers itself, viz. the breech; or some part of the inferior extremities, as the feet or the knees.

B, those others in which neither the head, breech, nor any part of the lower extremities, present. Such are transverse presentations, to which, indeed, the phrase *cross births* ought in propriety to be restricted;—breast, abdomen, side, back, shoulder, neck, elbow, and hand presentations.

I shall hereafter tell you, it is of the greatest possible consequence, that we should clearly discriminate—and that early in the labour—between these two orders of preternatural cases, although they are both included in one class; because labours of the first order—where the breech or feet present—will generally be terminated with very little assistance beyond what nature affords: whereas, in order to accomplish delivery, under most transverse presentations we are compelled to perform an operation of considerable difficulty, pain, and danger.

Fourth class.—I have thought it best to admit into the fourth class *complex labours*,—although this is a deviation from Denman's system—all those cases which cannot be referred to one or other of the foregoing divisions—because there are particular symptoms added to each, inducing danger, or rendering them complicated. I shall not adopt the term *anomalous*, employed by Denman, but designate the class *complex*. This class, then, will embrace nine orders, most of them attended with danger, and all with irregularities. The following will embrace them all:—

A. Labours complicated with dangerous hæmorrhage.
B. ———— convulsions.
C. ———— rupture of the uterus.
D. ———— ruptured bladder.
E. ———— descent of the funis before the head or breech.
F. ———— descent of one or both hands with the head or breech.
G. ———— syncope unconnected with uterine floodings.
H. Labours in which monsters are produced.
I. Labours under which two or more children are born.

Now three circumstances must strike you on this enumeration: first, the number of orders jumbled together in one class, without their possessing any affinity to each other; secondly, that some of them are in the highest degree dangerous, while others must not be considered more than ordinarily so; and, thirdly, that in some of them the danger or irregularity is referrible to the parent, and in others to the child. Thus, in cases of hæmorrhage and convulsions, the cause is to be sought in the system of the mother; but where the funis or hand descends by the side of the head or breech, the irregularity is referrible to the ovum, and the cause is to be sought for in the arrangement of the contents of the uterine cavity. This, then, may be looked upon as a refuse class, in which those cases are all assembled that could not be well comprehended under one or other of the three former. Each of these orders might indeed be considered a separate class, but I think it better to comprehend them under one general head, in order to prevent a multiplication of classes; because in all nosological arrangements such a diversity must be both inconvenient and embarrassing.

STAGES OF LABOUR.

Most writers agree that it is desirable, for the purpose of clearly understanding the process, to divide labours into certain parts or *stages*; but as there is much difference in the classification adopted by different teachers, so also great diversity has obtained in the number of these stages;—some, as Blundell, preferring two; some three, as Denman, Hamilton, Thatcher, and most modern teachers; others four, as Merriman, Romer of Zurich, Bard of New York; and others, again, five, as Hogbem;—all these stages terminating on the removal of the placenta. I think Denman's arrangement by far the best for practical purposes, and shall therefore consider labours as consisting of three stages: the first terminating with the opening of the os uteri to its full extent, the rupture of the membranes, and the evacuation of the liquor amnii; the second, with the birth of the fœtus; and the third, with the expulsion of the placenta. We might with some shew of reason add a fourth stage, considering that to end with the complete closure of the uterine vessels, and the stoppage of every chance of hæmorrhage: but as this last might perhaps continue nearly throughout the whole puerperal month, it may be as well to follow the more ordinary usage, and to regard labour as divisible into three stages only.

FIRST STAGE.—DILATATION OF THE OS UTERI.

Varieties in the feel of the os uteri.—The first stage, that which depends upon the dilatation of the os uteri from its perfectly close state to that of its full diameter, is generally the longest, the most uncertain in time, and the most tedious both to the attendant and the patient. This stage varies exceedingly in every feature, as, indeed, do all the others. There is a great difference observable in different women, and in the same woman at different labours, in the state of the os uteri soon after the commencement of the process. In some you will find it soft, lax, and yielding,—though not dilated, still dilatable; while in others you will find it hard, firm, rigid, and unyielding, not allowing of being distended at all by the finger any more than this piece of hard leather. Indeed, there are four chief varieties of the os uteri, during the first stage of labour, as to its character. The first is when it is thick, soft, moist, cool, sensible to the touch,—but not painfully so,—having very much the feel of a piece of thick, wet, chamois leather. The second variety is when the os uteri is thick, but has a hard surface; when it is thick, hard, and rigid; perhaps also hot, dry, and tender, and gives a sensation to the finger very much like touching a piece of cartilage. Under the third variety the os uteri is thin, soft, moist, cool, and not painful, its edge feeling like a piece of moist brown paper; and so thin, that through the substance of the cervix the head of the child can be pretty distinctly felt. The fourth is when it is thin also, but hard and rigid, tender or not according to circumstances, having a glazed feel, with its edge surrounding the presenting part of the child, and tightly embracing it, like a piece of whip cord. Under one or other of these varieties we shall always be able to arrange all states of the os uteri soon after the commencement of labour. It may be regarded as most likely to dilate kindly, when it possesses a soft thick feeling, like a piece of wet chamois leather, and is, as it were, chinked. Certainly either of the two soft states gives a better indication of a disposition to dilate, than those which are rigid; and it may be also deemed least inclined to give way, when it is thin and hard, and when the head comes down into the pelvis completely covered with the cervix uteri,—the circular edge resembling whip-cord, or wire.

Varieties in the time occupied in dilatation.—As there is almost every variety in the state of the os uteri at the commencement of labour, so also there is great diversity in the time occupied in its opening; sometimes two or three hours only, at others the same number of days, are consumed in the progress of the first stage; and the os uteri of the same woman will vary exceedingly in this respect in her different labours.

Variations in the height of the os uteri.—We also find the os uteri varying exceedingly in situation at the commencement of labour; it is sometimes so high, that we can scarcely feel it when the finger is introduced, as in a common examination; and at others it is so low, that it is met with just within the vagina, and the presentation may be detected through the cervix. A more speedy termination may be expected, *cæteris paribus*, when the head has descended somewhat into the cavity of the pelvis, than when the os uteri is felt nearly at the brim; unless, indeed, the cervix uteri should possess the thin, glazed, hard feeling, that I have just described; when we are to anticipate a lingering labour. It is generally to be found about two inches from the vulva, looking backwards towards the middle of the hollow of the sacrum; and it is extremely easy to be discovered by the fore finger of the right hand, or, at any rate, by the two first fingers of the left hand introduced into the vagina.

Relative progress of dilatation.—Again, we observe that the first part of the dilating process usually goes on slower than the after part. Thus, that degree of dilatation under which the organ acquires the diameter of a shilling,—sufficiently large to admit the tips of two fingers,—will perhaps take up a longer period of time than its dilatation from that small size to the full and entire dimension, which readily admits the head of the child to pass through it. This partly arises, perhaps, from the natural disposition in the os uteri to open more readily after it has acquired a certain diameter; but it is owing also in some degree to mechanical action; for when the os uteri has acquired such a size as to admit the membranous bag, or any portion of the child's head to occupy its aperture, the protruded part acts like a wedge, and forcibly distends it. The action, however, is not entirely and purely mechanical, for it depends in a great measure on the principle of vitality.

Dilatation most difficult in first labours.—Generally speaking, the os uteri dilates with more pain and difficulty, and takes a longer time in the process, during first labours than subsequently. This is, however, by no means an universal remark, although we usually observe that, when women have had a number of children, the os uteri dilates with comparative ease. Denman accounts for this facility by remarking—"We may presume that a part which is accustomed to perform an office, or undergo a change, acquires a readier disposition to the office or change, according to the number of times it has performed that office, or undergone that change." I shall hereafter have occasion again to notice this subject, and shall give you a striking instance in which this rule did not hold good.

Time occupied in dilatation indefinite.—It is quite impossible that we can give even a probable guess as to the time which any particular os uteri will require for the process of dilatation; for sometimes an os uteri which has been from the commencement of the labour highly rigid, scarcely shewing the least disposition to open, will suddenly become relaxed, and rapidly distend its circle to its full dimensions; at others, while soft and flaccid, the pains will altogether subside without any apparent cause; the process of dilatation will be suspended, and the labour will remain stationary for hours, without in the least progressing.

Pain in the first stage borne with difficulty.—The pain experienced during the first stage, although not so intense or acute as in the second, is still more difficult to bear; and is also borne generally with less fortitude. It is, as I stated before, of a different kind from the pains of expulsion; it is a feeling as if some inward part were being torn, or rent asunder. But it is not only perhaps in consequence of the peculiar sensations experienced, that the patient does not endure these "grinding" pains with so much resignation as those of a more "forcing" character; but also from the knowledge which she has gained, either by a previous labour, or in conversation with her friends, that so long as the "grinding" pains continue, there is no chance of a speedy release; but that, as soon as the "forcing" pains come on, the labour may speedily be brought to a close; and *every next*, she thinks, may terminate her sufferings. As soon as the pains become changed in their character, hope is infused, fresh spirits are instilled, and thus the patient's powers are sustained. It is principally, perhaps, owing to this cause that women are more irritable during the first, than in the second stage; although the pains of expulsion are more violent, and attended with more of actual painful sensation.

Intermission of the pain.—If the labour be progressing regularly, the pain subsides and again returns; thus intermissions alternate with paroxysms of suffering; and we shall frequently find, if the patient be in other respects well, and in good spirits, that she will fall into a dose and obtain a refreshing slumber during the intervals of uterine action; each pain, when it returns, awakening her from the delicious state of oblivion and repose, to a fearful consciousness of the trials she has to undergo.

Rupture of the membranes.—With each pain the membranes are more or less protruded through the os uteri, so that they become tense, and the circle of the dilated mouth is drawn tightly around them. In the interval of pain, when the uterus exerts no pressure from above, the membranes retreat, become flaccid, and are scarcely to be felt; and as there is little or no water then intervening between the finger and body of the child, its presenting-part can usually be distinctly discerned. Such a state of alternate protrusion and retrocession of a part of the membranous cyst continues an uncertain time; when under some one of these painful contractions the membranes will burst, the liquor amnii will be evacuated, and the head of the child will come to bear, with each paroxysm, against the internal surface of the os and cervix uteri. On the breaking of the membranes the first stage of labour has terminated.

Variations in the period when the membranes rupture.—I have thus described the progress of a labour until the rupture of the membranes, taking it for granted that the liquor amnii will not be evacuated until the os uteri is dilated to nearly its full extent; but these two occurrences,—the full dilatation of the os uteri, and the rupture of the membranous cyst,—are not always found in practice to correspond with regard to time; for sometimes the membranes break before the os uteri is dilated even to the size of a shilling; while at others they protrude considerably through that organ; the head of the child having descended so as to occupy the cavity of the pelvis, and the os uteri having been widely open for some considerable time. Generally the membranes burst when the mouth of the womb has become dilated to a size sufficient to admit the hand, and we may presume that where such a degree of dilatation exists, the next pain or two will expel the head entirely through its orifice.

According then to the rigidity of the membranes, and the yielding state of the os uteri, will be the time occupied previously to their rupture, and the discharge of the liquor amnii. When the os uteri is lax, and the membranous bag tough, the time will generally be long before it bursts; but when it is rigid, and the membranes thin and tender, they generally break early. The period at which the membranes rupture, therefore, will not only depend upon their own toughness or tenuity, but it will also be regulated by the pressure which the edge of the os uteri exerts on them while they are protruded through it. The more lax is the os uteri, the less is the compression on the extruded portion of the cyst, because the os uteri then distends to the power operating from within; but if it be rigid, the pressure is great; for then the inner margin closely and strongly embraces the tense membranes all around, producing by its very resistance a circular groove; and thus disposing them to premature laceration.

Necessity of preserving the membranous bag entire.—It is highly desirable in practice to preserve the membranous bag entire as long as possible; or, at least, until it has performed the whole of the office destined for it by nature;—namely, the dilatation of the os uteri, the vagina, and somewhat of the external parts. When the membranes appear externally to the vulva, indeed, we may then suppose that they have done all the good that can be expected from them; that their remaining entire may possibly be retarding the labour; and we may in that case venture to rupture them, provided the head present. It is one of the first axioms to be learned in midwifery, not officiously or unnecessarily to break the membranes, but to preserve them entire as long as we can; or, at least, until they have performed the whole of their intended duty.

Immediate cause of the opening of the os uteri.—The os uteri is supposed by some physiologists to be drawn open by the longitudinal fibres of the womb contracting, and by that contraction dilating its orifice. They presume that these fibres are inserted into the os uteri as into a tendon, and that their action tends to draw the edges asunder. By others it is supposed that the os uteri possesses an elasticity similar to caoutchouc, and to that cause they refer its dilatation. Others attribute it entirely to the membranous bag acting as a wedge from the very commencement. I believe it may be explained partly by each of these causes, or all acting in co-operation. Certainly the os uteri does possess a peculiar elasticity, which inclines it to give way;—the membranes form a powerful wedge, which dilate it in some degree;—and it is possible also that the longitudinal fibres of the uterus being inserted near its circular mouth, may to some extent draw its edges asunder: but I am inclined to attribute the dilatation principally to a law of nature, which disposes it to open when the uterine fibres are disposed to contract; because we find that when the membranes break at the beginning of the process, before the os uteri is dilated even so much as to admit the tip of the finger,—when no part of the ovum can be received into the aperture of the os uteri,—still that organ will dilate; so that the cause cannot be at any rate entirely mechanical.

SECOND STAGE.—PASSAGE OF THE FŒTUS THROUGH THE PELVIS.

From the foregoing remarks we gather that after an uncertain time, the os uteri becomes fully dilated; the membranes burst; the liquor amnii is evacuated, generally in a full stream; and the second stage of labour commences.

Modes in which the vertex presents.—The passage of the head through the brim of the pelvis forms the first part of the second stage. It is probable, indeed, that the head may have descended considerably into the cavity before the "waters break;" but it is also possible that it may scarcely have engaged itself even in the brim, when this crisis in the process occurs. There are eight different modes in which the head may present;—the vertex being the dependent part. We have already applied the term *vertex* to that spot of the head placed rather anterior to the hinder fontanelle, from which the hair diverges as from a centre. That the vertex should present—and it is by far the most frequent presentation, not only of the cranium, but also of any portion of the fœtal body—is most wisely ordained by nature, because the head, when this part is placed downwards, will pass through an aperture of much less dimensions than if any other portion of the cranium presented. Nearly an inch of less space is required in one of the diameters when the vertex depends, than when the brow, face, or any other part, offers itself; as you may observe in the difference of size between these two apertures, cut for the purpose of illustrating this position: thus, then, the head is usually placed in such a position at the commencement of labour as to require the least possible space in consideration of its size and form. If, then, the vertex be the presenting part, there are eight different modes under which the head may attempt the passage.

The first is, with the face inclining to the right ilium; the right ear being behind the symphysis pubis; the left ear below the promontory of the sacrum; and the occiput inclined to the left ilium. The second is the reverse of this position; the face inclines to the left ilium; the occiput to the right ilium; the right ear lies below the promontory of the sacrum; the left ear behind the symphysis pubis. The third mode is when the head is placed diagonally, the face looking to the right sacro-iliac synchondrosis; the right ear to the right groin; the left ear to the left sacro iliac synchondrosis; and the occiput behind the left groin. The fourth position is the reverse of this again, where the face is placed against the left sacro-iliac synchondrosis; the occiput behind the right groin; the right ear against the right sacro-iliac synchondrosis: and the left ear behind the left groin. The fifth position is where the face is looking towards the right groin; the occiput to the left sacro-iliac synchondrosis; the right ear to the left groin; and the left ear to the right sacro-iliac synchondrosis. The sixth position is where this is reversed, the face looking towards the left groin; the occiput to the right sacro-iliac synchondrosis; the right ear to the left sacro-iliac synchondrosis; and the left ear to the right groin. The seventh is where the head attempts the passage with the face immediately against the promontory of the sacrum; the right ear to the right ilium; the left ear to the left ilium; and the occiput behind the symphysis pubis. And the eighth and last, where this position is reversed, the occiput being exactly against the promontory of the sacrum; the face behind the symphysis pubis; the right ear to the left ilium; the left ear to the right ilium.

These are all the modifications of vertex presentations which it is worth while to enumerate, and I dare say you think they are sufficiently numerous; but to distinguish them is important, not for the mere object of theoretical disquisition, but in regard also to the conduct of the case. The French, indeed, have exercised much ingenuity in multiplying the fœtal presentations, and Mad. Boivin has given nearly 120 delineations of the different positions of the fœtus, and the modes in which it is expelled, or may be extracted under the various presentations.

Comparative frequency of the various modes of vertex presentation.—Of the presentations I have mentioned, the first four are by far the most frequent, and under them the labour is the most easily accomplished;—that is, when the face either looks directly to one ilium or the opposite; or diagonally to one sacro-iliac synchondrosis or to the other. Of these four positions I do not know which occurs most frequently. I am inclined to think, from cases where I have had an opportunity of learning particularly the situation of the head before it makes its turn,—under the application of the forceps for instance,—that the face looks more frequently to the left side than to the right; but I do not know that other practical men have made the same observation; and the preponderance of this situation in the cases I have met with might only be accidental. Some writers, indeed, as Campbell and Ashwell, tell us, that in the greater number of labours the fœtus enters the pelvis with the face to the right side. Under either of these positions, the natural inclination of the head is to descend into the pelvic cavity in the same direction in which it cleared the brim, until it reaches the outlet, and then to turn with the face into the hollow of the sacrum, and the occiput under the arch of the pubes, the face being expelled, sweeping the sacrum and perineum.

Of the next four presentations the fifth and sixth are the most frequent, viz. where the face is looking diagonally to one or other groin, and the occiput to one or other sacro iliac synchondrosis. These are not very frequent cases, but they are occasionally met with, and the head is seldom so speedily expelled as in either of the first four. In these situations, the natural inclination of the head is to pass down diagonally till it comes to the outlet of the pelvis, and then to turn with the face under the arch of the pubes and the occiput into the hollow of the sacrum. You will see how much more room is required in this position, and how much less easily the head adapts itself to the passage; for this head [presenting it] passes most easily into the pelvis which I hold in my hand,—whose capacity, indeed, is larger than ordinary,—when the face is thrown into the hollow of the sacrum; but if the face be turned forwards, behind the symphysis pubis, you see it does not accommodate itself to the pelvis;—that in this dry state it cannot be thrust through even by force;—and in the recent state, it would require to be compressed to a much greater extent than if the face naturally inclined backwards: consequently, in the same degree, would the labour be rendered tedious or difficult. These irregular positions of the head are frequent causes for the necessity of instrumental interference.

The seventh and eighth cases of vertex presentations—where the face attempts the passage, being placed directly against the promontory of the sacrum, or above the symphysis pubis—are the most infrequent of all vertex presentations; they are so rare, that some practitioners of considerable experience tell us they never met with them. Dr. Naegel, indeed, of Heidelberg, in his essay on the Mechanism of Parturition, denies the existence of such a case; and Dr. Campbell, of Edinburgh, who within the last few weeks has published a System of Midwifery, which is a valuable acquisition to our stock of obstetrical works, doubts the possibility of its occurrence.

As in the early part of the observations I have laid before you, we learned that the fœtal cranium, from occiput to forehead, measures four inches and a half, while the sacro-pubal diameter of the pelvis at the brim possesses only four inches of clear available space; it is evident that, although the head might present in the seventh or eighth position, it cannot enter the pelvis in either of those directions. Before, then, it can engage in the superior strait, it is compelled to turn, with the face somewhat towards the right or the left side. I have certainly never been called upon to deliver by instruments when the head occupied the unfortunate situation we are discussing; but I have known it to obtain at the commencement of labour; and I have traced the head make a turn with the face to one or other side, being forced into that position, by the strength of the uterine contractions, in an analogous manner to the turn effected in all natural labours when the head is on the point of being expelled. I think, therefore, the assertion, that such a presentation never occurs, or is impossible, far too general and sweeping.

OBSERVATIONS ON THE

CROWING INSPIRATION OF CHILDREN,

And its Connexion with a Morbid Condition of the Thoracic or Cervical Absorbent Glands.

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[Concluded from page 795.]

A most important part of my subject remains for consideration: this is the treatment of the disease, for which, as it is produced by various causes, it is impossible to devise any catholic remedy of universal application; and the difficulty of prescribing appropriate means is much enhanced by the frequency with which enlargement of lymphatic glands, even when produced by a local cause, is connected with a lurking constitutional taint. After trial of various measures of relief, the great practical conclusion at which I have arrived is, that whilst violent remedies of all kinds, especially profuse blood-lettings, large doses of calomel, or other mercurials, and violent doses of drastic purgatives, are worse than useless, such remedies alone as will uphold the constitutional powers without producing general excitement, afford the best chance of curing the patient.

A somewhat generous diet, varying according to the age of the child, but easy of digestion, and unirritating, should therefore be allowed. And amongst the medicinal agents, mineral acids, some metallic preparations, as the milder forms of iron, zinc, or copper, and occasionally, in very enfeebled subjects, quinine, or other vegetable bitters, may be employed with advantage.

As cold is well known to have considerable influence in enlarging these glands, the protection of these children from sudden vicissitudes of temperature constitutes a very important feature in their management. The warmth, therefore, of their room should be moderate, *equally remote from the excessive heat which excites, and from the extreme cold which is so apt to engender* catarrhs and other inflammatory ailments, and to drive the blood from the surface. And here I cannot refrain from noticing the injudicious arrangement of even the very moderate accommodation which houses in large towns afford for children. Nothing can be worse in general, both in construction and situation, than very many of the nurseries, even amongst the more respectable classes of society: they are often in the upper part of the house, in the attics as they are called, almost immediately under the roof—where the children are scorched with heat in the summer, starved with cold in the winter. It will materially aid the beneficial effect of remedies, if, sacrificing convenience to the health of these little patients, they shall be removed from this exalted situation, and allowed to occupy a lower apartment, not so subject to the skyey influences of a notoriously uncertain and unequal climate. Warm clothing also is essential. The delicate skins of these children are peculiarly sensitive to the impressions of cold, and require generally the protection of flannel, in which they should be clothed from the neck to the wrists, the legs being also encased in woollen stockings.

In damp weather and situations, the symptoms of this disease are commonly and considerably aggravated. It should therefore be a peremptory injunction to the friends, to confine children labouring under this malady to the house during fogs or rain, and when the wind is bleak, as well as dry; but in temperate and dry weather they are not to be debarred from exercise in the open air. Nor need we be deterred by the mucous rattle so frequently observed in this disease, which will not be increased by moderate exposure. There is in these cases no inflammation to be increased, or irritable membrane to be excited, by the access of an air, cooler than that of the house, to the air tubes: there is probably not even an increase of secretion. The sound of mucus is simply the result of accumulation from defective power of the expelling apparatus, which, we have seen, is at least partially paralysed, and over which weather has little other influence than as it increases or diminishes the bulk of the absorbent glands.

When the circulation is languid, as is proved by the feebleness of pulse, cold extremities, the appearance of chill, or the actual occurrence of chilblains, and torpid bowels, the warm-bath, succeeded by friction with a coarse towel, will be found a valuable auxiliary. Some, with a view to increase the strength, and, by "the reaction," as it has been technically called, to give vigour and increased activity to the circulation in the extremities and upon the surface, have suggested dipping in the cold-bath. But fear or sudden fright are amongst the most frequent causes of a paroxysm; and even the impression of cold upon the skin is injurious. We have already seen, that in one case at least, the first attack was brought on with "a gasp," by the application suddenly of cold water to the head. This is abundantly intelligible. Even many in health often experience an embarrassment of breathing, with sense of oppression, from constriction of the glottis, upon plunging into cold water; and this constriction is of the essence of this malady. Whatever, therefore, has a tendency to excite, to aggravate, or reproduce this constriction, cannot fail to be detrimental in this ailment.

In all cases, moreover, of this crowing disease, mild but efficient aperients are useful. Upon this point Dr. Merriman speaks in a tone of confidence, which proves his conviction of the truth of this gratifying announcement. "If timely attended to," says my estimable friend, "the complaint commonly yields to *daily* aperients, so as to produce at least two copious motions; and continued doses of soda, or a strong infusion of burnt sponge, with proper attention to diet and regimen." Although my own experience does not warrant my speaking with the same certainty of the almost universal efficacy of these remedies, employed to the exclusion of others, yet it is impossible not to assent most cordially to the propriety of enforcing the employment of aperients. It has already been shewn, that whatever interferes with the respiratory function will produce and increase the frequency of the paroxysm; and a distended alimentary canal is obviously an impediment to breathing. It is now some two years since I was sent for to an adult, who had no symptom of disease of structure or of function in the respiratory system, on account of obstinate obstruction in his bowels. I found this man, of robust health, with the waistband of his breeches and his waistcoat unbuttoned, that room might be made for the enormous distention of his bowels, and that all pressure might be removed from his chest. He was unable to lie down on account of breathlessness in that posture; his breathing was short and very laborious; his lips swollen, and blue; his countenance with a livid tinge, and his pulse irregular. In fact, his appearance was that of a patient dying of hydrothorax. He had been plied with reiterated doses of active purges, in a fluid and solid form, and stimulant clysters, but without effect. I directed for him two drops of the croton oil, which purged him furiously in the course of the night; and though greatly enfeebled, he was unable to resist the temptation of walking to my house on the following day from Lisson Grove, a distance of at least two miles, to express his gratitude for the relief he had experienced. This was a pure and unmixed case of urgent dyspnœa, induced by abdominal distention, and cured by its removal. With still more certainty will injurious effects arise from the same cause, where there is already disease, structural or functional, of the respiratory apparatus. Besides, it has been already stated, that in many cases the digestive and propelling powers of the stomach, more particularly at its large extremity, are impaired by the par vagum being also implicated in the effects of the compression, which is producing its principal influence upon the recurrent nerve. It has been seen, too, as a consequence of this, that milk and potatoe are constantly passing through the alimentary canal, the former white and curdled, the latter unaltered in form. If such undigested aliment be allowed to linger in its passage through the bowels, it is well known that serious results are apt to follow. The mucous membrane will be irritated by this unnatural stimulus: the child's remittent fever may be superadded, therefore, to the original disease. Slimy motions, sometimes streaked with blood, will be observed; the mesenteric glands, worried by the extension of irritation through the lacteals, will become enlarged; and the child, consequently, the victim of marasmus. I cannot, however, too strongly deprecate, in any stage of this progressive disturbance of the digestive organs, the employment of those herculean doses of calomel which it is the pride and boast of some practitioners to employ. They only aggravate the irritation of the mucous membrane: they have a tendency to add to the excitement, till that which was simple irritation advances to inflammation, and its consequence upon mucous surfaces—ulceration, which dissection will too frequently give us an opportunity of verifying. At all events, griping will be, by the agency of this potential remedy, next to inevitably produced, and the fits of threatened suffocation will consequently be at once more violent and more frequent; for few causes are so apt to renew these attacks as vehement crying, whether from pain or from passion.

Cough, as a concomitant or consequence of this disease, is of very frequent occurrence; and the terms in which parents and friends describe it, sufficiently mark its severity. It is represented by them as "like croup," or "hooping-cough;" as "coming in fits, enough to choke the child;" as "suffocating;" as "strangling;"—and it has even been mistaken by very competent authorities for hooping-cough. This cough, like all other circumstances that have a tendency to hurry or embarrass respiration, produces a recurrence of the paroxysms of breathlessness and crowing; and this more especially when the bronchial glands are affected. It is therefore an object of moment to tranquillize this cough, which, at the least, will save parts, which are enlarged by disease, from injurious shaking. For this purpose, such narcotics should be selected as neither disturb the head nor confine the bowels. The conium is one of those which have been much and deservedly commended in all cases of spasmodic cough, including hooping-cough; and I have not unfrequently employed it with advantage. Similar in virtue, but of minor efficacy, are the extract of the lettuce and of the potatoe, as recommended by Dr. Latham, sen.; and somewhat more powerful than these is the henbane. But the hop, as combining a sedative and tonic influence, is the remedy of this class which, upon the whole, in these cases, I prefer. Friction, also, with embrocations combining stimulant and sedative properties, will in very young children contribute largely to quiet not only the cough, but the whole nervous system. I have seen some smile incredulously at the proposal thus to tranquillize an irritable respiratory and nervous system by the external application of opium. But it is familiarly known in the West Indies, that rubbing the belly with castor oil will purge; and other remedies have been occasionally used in the same way. I may, however, upon the subject of this mode of applying opium externally, mention one instance, which is conclusive as to its powers. The child of a respectable tradesman in South Audley-street had an irritable cough, which much resembled, in every thing but the hoop, pertussis. I directed for it a simple saline mixture with an antimonial, and an embrocation of linimentum ammoniæ, with tincture of opium, in the proportion of two drachms of the latter to ten of the former. On the following morning, a general practitioner in the neighbourhood called to tell me that he had been summoned to this child, whom he had found in a state of torpor, almost amounting to coma, which he was satisfied could arise only from pressure upon the brain; and he desired my sanction for the employment of very active remedies. I inquired as to the remedies I had prescribed, when he gave me a most accurate account of the mixture, for the accuracy of compounding which he assured me he could answer, as he had made it up himself. He, however, omitted all mention of the embrocation, attaching little importance to it, or from its having escaped his recollection. Upon inquiring if the embrocation had been employed, I learned, that after the warm-bath, the chest and spine had been well rubbed with it. I saw the child soon after, and found it evidently labouring under the influence of opium. It had been asleep, without intermission, for sixteen hours, and during the next sixteen hours it could only be aroused twice to take the breast, and that very imperfectly. When the child recovered from the influence of this very powerful drug, the cough had nearly subsided. This is indeed an excessive effect, such as I have not again witnessed; but, in a less degree, I have repeatedly seen a similar influence from the same proportion either of the compound camphor, or the ammoniated liniments, and of laudanum; and I have no hesitation, therefore, in recommending the employment of the remedy.

As to the internal administration of opium in these cases, I have little experience either of its virtues or its vices. I have rarely employed it. Mr. North has suggested—rather, however, in the form of inquiry than a direct commendation—whether the black drop, the sedative liquor of opium, or the acetate of morphine, might not deserve a trial, when, by the dread of cerebral excitement, we are deterred from the employment of the more common forms of opium. Nothing can be more clearly conceived, or more forcibly expressed, than the restrictions with respect to its use in cases of convulsions, of the nature of which he considered this disease to partake, laid down by Dr. Clarke; and as they embody my own sentiments upon the subject, I cannot refrain from quoting them. "It requires the greatest consideration, and the exercise of great circumspection, to determine when and in what quantity opium may with propriety be exhibited in convulsions. It may fairly, however, be laid down as an axiom, that it should never be employed, on any account, until it is clearly ascertained that no danger is likely to arise from pressure on the brain—that there is not any existing inflammation of that organ; and never until the bowels have been completely unloaded, lest the stupor, arising from a compressed brain, should be imputed to opium; and the time when alone relief could have been given in inflammation of the brain, should be allowed to pass by, never to be recalled.

"When the medical attendant has reason to believe that no danger is to be apprehended from any of these circumstances, opium, in small doses, cautiously repeated, may be administered with advantage; and it will sometimes diminish pain, by lessening the sensibility and irritability of the patient. Great care must, however, be taken during the use of it, to keep the intestinal canal free*."

The rest of the treatment will be materially modified by the cause which has produced the glandular enlargement; and amongst the most frequent is "painful dentition," or possibly "anormal development of the teeth." Hence it is that Mr. North speaks so strongly in favour of frequent and effectual lancing of the gums in these cases; and my own experience has enabled me abundantly to verify this opinion of the advantage to be derived from this remedy. I also quite agree with him, that the effect of this remedial agent is not instantaneous, but requires some time for the exertion of its complete influence; for "it seldom happens that the symptoms subside until the appearance of the teeth. I do not mean to assert that they vanish instantaneously, as if by magic, the moment a single tooth starts through the gum: they pass off gradually *." This is not, however, the precise effect which should be expected, if the phenomena depended exclusively upon irritation of the gum, or the membrane of the tooth, extending itself to the nervous system generally, and the nerves of the closing muscles of the glottis in particular. In the spasms arising from structural disease of a nervous cord—"amota causa, tollitur effectus"—the effect is at least rapid, if not instantaneous.

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* Commentaries on the Diseases of Children, p. 108.

When the glands are enlarged, from eruptions upon the face or that part of the scalp from which the lymphatics proceed towards the glandulæ concatenatæ in the neck, the object, as in two cases successfully treated by such means, should be to sooth and cure these eruptions, by poultices, fomentations, mild or very slightly stimulant unguents, and gentle aperients,—not omitting, if these occur about the time of teething, also to lance effectually the gums and enveloping membrane of the teeth which may be advancing.

But, as Cruikshank has truly observed, "These glands not only enlarge from particular affections of the teeth and jaws, and of the integuments on the outside of the head, but from affections of the brain and its coverings †." To the state of the cerebral circulation, therefore, should our attention be also directed; for, although my experience warrants me in affirming, that the connexion is infinitely more rare than is commonly imagined, yet, beyond all question, it occasionally exists. The disease within the cranium, however, will in these cases manifest itself by the same symptoms which lead to its recognition in other instances unconnected with the sonorous inspiration. The crowing presents us with no additional evidence of head affection, and may in such cases be disregarded. But thus much of importance may be conceded to this symptom,—that where we can trace no other cause for its occurrence, where there is no "painful dentition," no inflammation or eruption upon the face or scalp, no particular exposure to cold, or strumous taint, our inquiries should be directed to the state of the circulation within the head; and if we are convinced, or strongly suspect, that congestion or excitement exists, we must have recourse, with activity and energy, to the employment of those means which are calculated to relieve it.

It does not fall within the scope of my present inquiry to canvass minutely, or even to enumerate, the characteristic symptoms of such pathological condition within the cranium, or even to point out the appropriate treatment. This has already been done to our hands. The symptoms have been well sketched by the master mind of the late Dr. John Clarke; and what was deficient in his account of the treatment, has been well supplied by Mr. North.

But there is one other cause of enlargement of both the cervical and thoracic absorbent glands, which I must not omit to notice. This is a lurking strumous taint, which is in this country, and amongst our northern neighbours, of very frequent operation, and often wholly unconnected with dentition. Notwithstanding the vast variety of means which have been suggested for the cure of this constitutional malady, it still remains "*inter opprobria medicorum.*" I do not pretend to provide a cure for a disease which has hitherto yielded to none of the means suggested. All agree, however, that mild and nutritious diet, proportioned to the powers of digestion; such moderate aperients as will carry the refuse of the food a little more quickly through the alimentary canal than in its torpid state in this disease it would otherwise pass; and the mildest tonics, as bark or bitters, or, where these are too stimulant, sarsaparilla, with gentle alteratives, offer the best chance of relief.

But other remedies have been suggested as useful in this disease, without any scrutiny as to their mode of operation, or suspicion that it was connected either with scrofulous tendency, or even glandular enlargement, but as the result of downright empirical experience.—Amongst these stand conspicuously, among the means recommended by Dr. Merriman, "continued doses of soda, or a strong infusion of burnt sponge*;" and, in a private communication with which I have been favoured by my friend upon the subject, he says, "Since I re-edited Underwood, my experience has, upon the whole, confirmed me in the opinion, that alkalies are useful remedies in the treatment of this complaint; but I now use sedatives, conium, hyosciamus, and opium, after opening the bowels more freely than formerly, unless there be evidence of determination of blood to the head; and I often give small doses of ipecacuan." These observations of Dr. Merriman, especially with respect to soda and burnt sponge, while they coincide greatly with the practical views which I have been led to take upon the subject, afford also collateral evidence of the frequent connexion of this crowing with glandular enlargement, for which such remedies are confessedly useful, and frequently employed.

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* North, p. 261.

† On the Absorbent System, p. 131.

In this catalogue of remedies, brief as it is, the first in order, as perhaps in importance, is the use of "daily aperients, so as to produce at least two copious motions." I have already taken occasion to advocate the propriety of this practice, upon the simple and single ground, that distention of the abdominal canal, by impeding the respiratory function, increases the frequency and severity of the attacks of this disease. I have now to notice it in its other relations. In this, as in all diseases where any portion of the nervous system is particularly implicated, it is necessary to remove all sources of irritation. With these, the intestinal canal, when clogged, abounds; and to this the attention of a judicious practitioner cannot fail to be duly directed. Indeed, in the present time, when it is the prevailing fashion to refer so many and diversified diseases to digestive disorder, there is little danger of its escaping notice. All practitioners and writers accordingly agree as to the utility of purgative medicines in this disease, although they may vary in the principle by which their practice is guided upon these occasions. So some purge to relieve the head, which they believe to be always the peccant organ, and for this purpose they employ gigantic doses of calomel, "worked off" by saline purgatives, to establish the larger drain from the vascular system. Others use enormous and reiterated doses of the same drug, (potent both for good and for evil,) without "working off," that it may excite irritation along the whole course of a lengthened canal, and thus not only drain the blood-vessels, but act as a "counter-irritant." Others again use the calomel, in the hope that it may exercise its assumed anti-inflammatory or anti-febrile influence, or produce some "specific," but curative effect, upon a hydrocephalic disposition; the term *specific* being here, as in all cases when it is employed in medical records or reasoning, to imply an impression upon the disease not in proportion to any sensible operation upon the system at large, (for ptyalism is not considered essential,) or upon any class of organs in particular. But the object of the most judicious practitioners appears now to be, to obviate accumulation and consequent distention, or to prevent the half-digested matters from lingering in and becoming in the alimentary canal, a cause of excitement to the mucus lining, or to remove or correct acrid secretions, where they exist; accordingly, the mildest aperients, provided they are sufficient for the attainment of these objects, are more commonly selected. Saline purgatives are not commonly desirable, as they not only clear the canal of its contents, but establish a weakening drain upon the constitution. Resinous cathartics, and other purgatives denominated drastic, are equally objectionable, on account of their griping influence, which will increase the frequency of the attacks, by the fretfulness, with crying, which it induces. Rhubarb, either in substance or infusion, is amongst the most useful of the aperients which we can employ, and it has the advantage of admitting combination with other medicinal agents which circumstances may demand:—so, if the secretions are disordered, mild alterative doses of mercurials, with "small doses of ipecacuan," may be added; if acidity, with very torpid bowels, magnesia constitutes a valuable addition; and if from indigestion, which is very common in this disease, more particularly when the par vagum has been subject to injurious compression, the canal be largely distended with flatus,—alkalies, with “volatiles and fœtids,” may be employed with advantage. It is evident, however, that Dr. Merriman considers soda to have some other property upon which its beneficial agency in this disease depends, though, from the obscurity in which the pathology of this disease has hitherto been involved, he had necessarily difficulty in explaining its mode of operation. His testimony, however, to its utility in this disease affords something like collateral and corroborative evidence of the accuracy of the views which I have been disposed to entertain as to the essential pathological condition in the great majority of instances of this malady; seeing that soda has long been a favourite remedy in morbid affections of the absorbent system, especially those connected with a strumous habit*. The same observation applies to the employment of the “strong infusion of burnt sponge,” which was long an empirical remedy in scrofulous enlargement of the lymphatic glands, even when the proximate principle upon which its efficacy depends was yet wholly unknown to the profession. But, as it has been now ascertained that the beneficial results from the use of sponge are to be ascribed to the iodine which it contains, it will be better to employ this essential ingredient in its composition. It may be employed both externally and internally. The neck and upper part of the sternum may be rubbed twice daily with any simple unguent containing about an eighth of the hydriodate of potass, whilst, for administration internally, the liq. hydriodatis potassæ may be combined with liquor potassæ, and any other remedies which may be thought advantageous.

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* Note in Underwood on the diseases of Children, Ed. 8th, 1827, p. 139.

Many have thought, and still think, too lightly of the influence of this remedy: it has been considered by some as powerless alike for good or for evil. To counteract this too prevailing impression, was the principal object of an interesting little work upon iodine, published some years since by my intelligent friend, Dr. Gairdner. He has had very numerous opportunities, both in this country and in those districts upon the Continent where the frequency of the occurrence of goitre leads to the extensive employment of this remedy, to witness its influence; and he has borne ample testimony, not only to its efficacy in many cases, but to the injurious effects which it is capable of producing in some constitutions, when given in too large doses, or when too long continued.

These are the pharmaceutical remedies from which I have seen the greatest advantage; but there are others which have been recommended upon high authority, and which may therefore be tried in combination or succession with those I have enumerated. Dr. Underwood, looking upon this affection, when accompanied with other symptoms, merely as an “extraordinary spasm,” says, he has succeeded in removing it in every instance, by treating it as chronical croup, with assafœtida, oleum succini, tinctura fuliginis, musk, or cicuta, according to circumstances. Of the last of these remedies, I have already spoken in terms of commendation; but I have little confidence in the others enumerated, unless in cases where the lungs are additionally embarrassed by flatulent collections in the stomach and bowels. There such remedies may be useful.

The means suggested by Mr. North, in those cases where there is no evidence of vascular turgescence or excitement within the cranium, consist also of a few simple, but efficient remedies; as lancing the gums, upon which, with much propriety, he lays great stress,—active purges of calomel and jalap, or tincture of senna, with tincture of jalap; and if hepatic derangement, nightly doses of one grain of calomel, in preference to the hydrargyrum cum creta. Where the “*spasms*” (?) are violent, he adds friction with a liniment combining stimulant and sedative properties, and, as already stated, proposes for consideration whether Battley's sedative liquor of opium, black drop, or acetate of morphine, might not be given with advantage. I am happy to find that my experience coincides as to the general plan of treatment recommended by Mr. North, for whose authority I have great respect, although there is some variation as to the precise agents which we respectively employ to compass the ends we have in view,—and that there is so little variation in our general views upon the subject of true convulsions. He has seen the preparations in my possession, and has expressed great interest upon a subject which he much encouraged me to elucidate.

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* Kirkland.

In addition to the remedies which I have noticed, I must not omit strenuously to recommend change of air. This is an important measure to all, but especially to the metropolitan child, in whom the impure air of a large town, and of the necessarily confined and ill-ventilated apartments devoted to the purposes of a nursery, has probably much contributed to the production of this disease. But, if my experience deceive me not, I should assert decidedly, that I have not seen so much advantage from the sea-side, with or without bathing, as, from its influence generally upon scrofulous ailments exterior to the cavities of the body, I should have expected; and I have recently seen two instances, with respect to both of which I have had frequent communications from the country, and their anxious relatives, which illustrate this point of the treatment.

In one—a sister of the child whose death was owing to suppurative inflammation of two of the bronchial glands and enlargement of others,—in whom the wheezing and cough have been so like hooping-cough that the friends have had recourse to the "salt of tartar and cochineal," the "sovereignst remedy" for that disease—the progress of the disease has been checked by keeping the patient constantly in the country, her time being divided between the higher parts of Essex, Bedfordshire, and Hampshire, at a distance from the sea. In the other, a swarthy, dark-complexioned, black-eyed child of a father whose look is unhealthy, and of a mother of a consumptive family, the wheezing and cough, connected apparently with glandular enlargement, continued unabated during a residence of nearly three months at Southampton and the Isle of Wight, but recovered upon her return to the most airy and dry part of Mary-le-bone, in which the parents reside.

And here I cannot deny myself the pleasure of adverting to an example of this disease which occurred many years since, which is admirably illustrative of the good effects of country air. It occurred in the child of a celebrated brewer of this town; and after having been for some little time under the care of Dr. Merriman, upon whose authority I venture to mention it, a consultation was held upon its case with the late Dr Sims. The latter, speaking of the treatment generally adopted in such cases by an eminent contemporary, emphatically stated his conviction that large bleedings, with calomel, were generally, according to his observation, rather injurious than useful; adding, that he knew of nothing which was decidedly beneficial but change of air. A lodging was taken for the child at Clapham, where it so far improved that it was thought justifiable to bring it back to London. Here, however, the malady returned; and at length the parents took up their permanent abode in the same district; and this sacrifice of convenience to the welfare of their child was amply rewarded by its perfect and permanent recovery.

But it is not enough that we thus employ remedies in the intervals, to prevent a recurrence of these paroxysms, although this is an all-important object, as it involves the permanent cure of the disease. It is probable that we shall not be present at the moment of attack, to superintend the application of proper means for shortening the duration of the paroxysm, and to insure the safety of the child; but it is the duty of the practitioner to put the nurses and friends in possession of those remedial agents which offer the fairest prospect of success. The child, then, being in what is termed "the fit," when there is a sudden and total cessation of the breathing, or when the struggle for its recovery is lengthened, the analogy of asphyxia from other causes, and more especially of some anomalous hysterical ailments, would lead us to apply strong smelling substances to the nostrils, and to dash the face with cold water, whilst the rest of the body is immersed in the warm bath; to which may be added strong friction of the ribs, spine, and sternum, with, or without, a stimulant embrocation. These are the principal means which analogy would suggest; they have for their object to excite the respiratory muscles to more vigorous and efficient action; and experience has contributed its sanction to what analogical reasoning would thus lead us to employ; for these appear to be the best and only efficacious remedies. To these means, however, may be added, where there is time for its preparation and administration, a clyster, with turpentine, assafœtida, or opium, or consisting of a combination of these. The clyster also of soft soap has been much commended; but I have seen less advantage from the employment of these measures, than the commendations bestowed upon them would have led me to expect; and it must be obvious that, in a case wherein either the child recovers with a crowing inspiration within (at the latest) two minutes, or dies of suffocation, the remedy, if prepared and administered, will commonly come too late to be entitled to any credit in the cure of the paroxysm.

Looking, moreover, at such cases as very nearly allied in their general character to asphyxia from drowning or hanging, might it not be advantageous, if the practitioner be present at the time, and if it can be accomplished without force, to introduce a tube through the constricted glottis, or even in extreme cases to open the trachea, for the admission of air within the chest? "In a dog three days old," Le Gallois "having produced complete asphyxia by division of the recurrent nerves, when all sensibility was on the point of being extinguished, and he made only very distant efforts to inspire," made an opening into the trachea. "Upon the first inspiration air rushed into the chest through the aperture; the carotids, previously black, became of a bright red colour (beau rouge), and the animal recovered without further aid." It may be said, indeed, of these cases, as M. Bourdon alleges very truly with respect to fatal asphyxia from the "tiraillement" of the recurrent by an aneurism of the aorta, that "no one has yet tried tracheotomy under such circumstances;" but it would surely be worthy of a trial under similar circumstances with those of the dog in the experiment of Le Gallois; that is, "when all sensibility is on the point of being extinguished," and the child makes only very distant efforts to inspire.

In one of the cases which I have related, the mother described the veins during the fit as "very black, and shewing very much"—a state which evidently endangers the occurrence of venous congestion within the head, and some impediment to the return of blood through the lungs, and the deleterious effects of black blood both upon the heart and brain. In the case of the man, in the Middlesex Hospital, with cynanche parotidea, who died suddenly, upon a minute quantity of blood flowing from the external jugular vein, which was opened by the apothecary of the establishment, one more effort to inspire occurred. Might it not be well to have recourse to this very easy operation for the purpose of taking away such a quantity of blood as shall suffice to relieve at once the head from congestion, and perhaps the poisonous influence of blood which has not undergone its proper changes,—and at the same time the lungs and heart, which are embarrassed, the former from the cessation of the respiratory function, the latter for want of the due stimulus of blood possessing arterial properties?

Such are the practical suggestions which I have to offer as to those by no means unfrequent cases in which the crowing inspiration—the constriction of the glottis—arises from the injurious compression of cervical or thoracic absorbent glands upon the nerves which supply the trachea, and the opening muscles of the arytenoid cartilages. In the present state of our knowledge, it were too much even to insinuate that no other cause is capable of producing this peculiar ailment. This would be to commit the same error which I have taken the liberty to discountenance in others. It is quite within the bounds of possibility that irritation, or pressure, at the root of the par vagum, may either excite that extraordinary exercise of energy in the superior laryngeal nerve, which will occasion a constriction of the glottis by the contraction of its closing muscles, or paralyse the recurrent nerves which supply the opening muscles, or disturb the function of the heart, lungs, or stomach, by the affection of some other of the filaments of which the whole nervous cord is made up. It must be acknowledged, however, that it is exceedingly rare to find, from a cause seated in the brain or medulla oblongata, and therefore at the origins of these nerves, a morbid condition of a few only of the filaments which help to make up the trunk from which they proceed. Generally, either the whole nerve is excited, or it is paralysed; and this consideration has always appeared to me to render the exclusive influence of a diseased condition of the brain in closing the glottis, if not problematical, at least difficult of explanation. It is equally possible that violent impressions upon the remote extremity of these nervous cords may cause an approximation of the sides of the glottis. "A blow upon the stomach doubles up the bruiser, and occasions that *gasping and crowing*, which sufficiently indicate the course of the injury[*]." The distention from a tavern dinner, or the injurious influence of wine of bad quality, or in large quantity, will produce hiccough, which is a rapid inspiration interrupted by a closing of the glottis. In children this same symptom is constantly observed from the distention of flatulency; "a little more severe," and the constriction of the glottis more complete, the crowing may possibly be produced. But these, and other causes capable of occasioning this sonorous inspiration, have been elucidated by others; and their investigation, even had I time for the purpose, does not come within the scope of the object which I proposed to myself in the series of communications which I am pleased to find have been thought worthy of insertion in the columns of the Medical Gazette,—which was, to illustrate the agency of one very important class of causes, which had hitherto evaded the notice of practical and pathological writers upon the subject of this disease.[†]

OBSERVATIONS
ON A
PECULIAR DISLOCATION OF THE LENS.

By R. T. Hunt,

Lecturer on Diseases of the Eye at the Pine-street School of Medicine and Surgery, Assistant Surgeon to the Eye Institution, &c. Manchester.

In the Medical Gazette of Nov. 12, 1831, will be found some remarks on injury of the lens, accompanied by the relation of a case in which the dislocated lens had passed through the sclerotica, and lay under the conjunctiva. The report is certainly imperfect, in consequence of its only extending to the fourth day after the extraction of the lens[*]. The following is the only addition I can now make to it.

After the lens was removed, the eye rapidly improved in general appearance; but there was a swelling in the situation from which the lens was extracted, formed by protruded vitreous humour. Pressure caused an escape of this humour through the ununited conjunctival wound. Supposing this tumor to be occasioned in the same manner with that caused by the lens, the removal of which gave him so much relief, the patient is very urgent to have this also opened, as he says it has something in it which makes his sight muddy. He was now desired to remove the strips of court plaister, when the eye became uneasy in consequence of their stiffness, and to apply the collyrium plumbi acetatis freely.

Oct. 31st.—Improving; vision much better. He complains of no pain; but the tumor caused by protrusion of the vitreous humour still continues. It is now more than two years since I last saw this individual; but although at that time the sclerotic laceration had not completely united, there was no further diminution of vision. Since then three similar instances have occurred in the practice of the Manchester Eye Institution; two under the care of my respected colleagues, Mr. Barton and Mr. Walker; the other under my own care. In the case treated by Mr. Walker, the injury was caused by a blow of the fist. The sclerotica was lacerated at the upper part, but much more posteriorly to the corneal junction than in Siddal's case; and the lens was not removed until about a month after the accident. The man stated that he could see for some days after the occurrence of the injury, and that the pain was very trifling until about a fortnight afterwards, when it became very severe. In both the other cases also, the removal of the lens was not effected until a length of time after its dislocation, and vision had suffered so much, either at the time the injury was inflicted, or in consequence of subsequent inflammation, that no improvement in this respect could be reasonably expected, although even in these instances the general condition of the eye appeared much improved, and considerable relief was obtained by the operation. After the lens has been thus forced through the tunics, such inflammatory action may be set up, particularly in the sclerotica and conjunctiva, upon both which this must now act as a foreign body, as may lead to the most serious results.

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[*] Sir Charles Bell.

[†] Dr. Ley has requested us to notice the following inaccuracies in his paper in our last No.:—P. 788, c. 2, l. 4, for neuralema read neurilema; l. 45, for consequence read consequences; l. 48, a semicolon should have been placed after the word plexus: p. 789, c. 2, l. 41, for comparison read compression: p. 790, c. 1, l. 17, for respiratory read inspiratory: p. 794, c. 1, l. 20, for Morgagni read Mascagni; l. 55, the whole sentence, to the end of the paragraph, is a quotation from Baillie.

[*] My excuse for inserting a report of a case still under treatment, is, that Mr. Mackenzie had, a short time previously, directed the attention of the readers of the Medical Gazette to the different kinds of dislocation of the lens; and I thought that the account of a rather unusual variety would be more interesting at that period than subsequently.

An extensive laceration of the sclerotica, not complicated with dislocation of the lens, owing to the degree of violence requisite to produce such a lesion in this strong fibrous texture, will frequently, even under the most judicious treatment, be succeeded by general inflammation of the globe, and total loss of vision. How much more danger is there of such a laceration, when we have, in addition to the laceration, the dislocated lens bound down upon the wound by the conjunctiva, which, from participating in the injury, soon becomes inflamed, and is sometimes quite in a state of chemosis—not only thus increasing the pressure of the lens upon the wounded sclerotica, but also the irritation caused by the tumor pressing upon the sensitive conjunctival lining of the lid. Now if, in such instances, an incision be made in the conjunctiva, and the lens extracted, the case, to say the least of it, becomes less complicated by the removal of that which had become a foreign body, and consequently a more favourable result may be expected. The case of Siddal is evidence that such an expectation will not always be disappointed.

Mr. Lawrence has done me the honour, in his "Treatise on Diseases of the Eye," to notice the case of unusual dislocation of the lens. "The lens has not only been displaced by a blow, but forced through the external proper tunics, so as to lie under the conjunctiva. It has escaped on puncturing the tumor caused by its presence. Vision was lost*."—Page 143.

I am fully aware of the trifling estimation in which any of the opinions of one so unknown as myself will be held, in comparison with those of so eminent a surgeon as Mr. Lawrence; but this knowledge will not prevent me from exclaiming against such an inaccurate statement as the foregoing. It is the latter part of the sentence to which I refer, in which Mr. Lawrence says "vision was lost." How he can have come to such a conclusion, whilst reading the report of this case, is to me most unintelligible. "Oct. 28th.—The progress of the case, up to the present time, is very favourable. He can now distinguish objects, and there is no appearance of opacity in the pupil." How different the abbreviated case is from the original, I leave the readers of the Medical Gazette to determine. I will only add, that when an author, and one too of such high rank in the profession as Mr. Lawrence, places an advertisement at the commencement of his volume, in which he states that "the opinions and experience of others are quoted and examined," it may be too much to anticipate a perfectly unprejudiced decision, but the least that his readers should expect, is accuracy in his quotations.

CASE OF JAUNDICE WITH CEREBRAL AFFECTION TERMINATING FATALLY.

To the Editor of the Medical Gazette.

SIR,

IN consequence of an interesting paper on jaundice, accompanied with coma, by Dr. Griffin, which appeared in your journal of Saturday, Feb. 22, I have been induced to submit to your notice the particulars of the following case.

Ann Carter, æt. 16, single, was admitted into St. George's Hospital, under Dr. Wilson, on September 18, 1833.—Pulse 80; skin suffused with bile; tongue clean; bowels open; urine scanty, of a deep yellow colour; catamenia irregular. Is said to have had very low spirits lately; has been crying nearly every day; *her head is very confused*, and she cannot answer well for herself. Her mouth is parched and dry; much thirst; pain in the hepatic region; *very severe headache;* pain on inspiration; "nasty taste in the mouth." Has been ill with jaundice a fortnight; is very sick, and vomits frequently; great weight over her eyes; sees every thing of a yellow colour; *is very drowsy*.

19th.—The water to be drawn off.

"* London Medical Gazette, vol. ix. p. 178."

Insensible; has brought up much blood at different times this morning; her breathing is very laborious, and the whole of her body is of a deep yellow colour.

Died at two, P.M.

Note.—She became quite insensible last evening, having been very much confused, and nearly *comatose*, since her admission. Bowels open last evening; motions reported as very pale, of a light clay colour.

Sectio.—The dura mater was deeply stained with yellow; also the glandulæ pacchioniæ. The convolutions of the brain were flattened. The lateral sinuses were filled with blood. *No effusion, nor undue vascularity, in the substance of the brain.* The inner lining membrane of the upper part of the trachea very vascular. A large earthy concretion, about the size of a chestnut, in the bronchial gland, at the bifurcation of the trachea. The liver soft, flaccid, and unusually small; its substance in parts stained with bile; there was no fluid bile in it. The ductus communis choledochus not obstructed, but larger than usual. The left kidney of a bright yellow colour; the right not so yellow. Heart small. Inner coat and semilunar valves of aorta very yellow. Inner membrane of the stomach granulated, and suffused with bile. Spleen healthy. Pancreas not stained.

In this case there was nothing in the brain to account for the violent head symptoms during life, which appear to have depended on a deranged state of the liver, just as they sometimes coincide with a morbid condition of the kidneys, or the mucous follicles of the bowels, in common continued fever. It is worthy of remark, that Mr. Twining, in his Clinical Illustrations of the more important Diseases of Bengal, states, page 258, "in some cases I have known robust patients die with symptoms of oppressed brain, within thirty-six hours after the sudden appearance of intense jaundice; for the accession of which last-named disease no cause could be assigned."—I remain, sir,

Your obedient servant,
C. J. B. ALDIS, M.B.

13, Old Burlington-street,
Feb. 24, 1834.

DEFENCE OF THE MEDICAL OFFICERS OF THE LIVERPOOL DISPENSARIES.

To the Editor of the Medical Gazette.

SIR,

OBSERVING, in the last Number of your Gazette, some observations by Dr. Collins, of this town, on the officers of the Liverpool dispensaries,—which observations are calculated to convey an erroneous impression to the public,—I beg your permission to state shortly the real facts of the case.

By the original laws of the dispensaries, no governor was allowed to vote at elections until one month after becoming a subscriber. About four years ago, however, the committee, in the exercise of their power "to make such temporary regulations as they think fit, (which regulations are to stand confirmed, unless annulled at a general meeting of the governors,") abrogated the law in question, on the ground, that while a few additional subscribers might be gained on the occasion of a vacancy, it was extremely improbable, that, in a constituency of 1500, new voters would be introduced to such an extent as to affect "the purity of election." This resolution of the committee not having even been alluded to at the subsequent general meeting of governors, of course stood confirmed; but so ignorant were the medical officers, and the governors generally, of the change which had been made, that when an election took place last year, (the first since the law had been annulled,) it was generally supposed that the original law was still in existence; and several of the medical officers who attended the meeting on the subject of the Aldersgate-street Dispensary, were even then not aware of the alteration which had taken place. As soon as the discovery was made, it was determined to bring the question before the next general meeting of governors, with a view to the re-introduction of the original law. It was not deemed necessary to call a special meeting, as the annual meeting was very shortly to be held; and the medical officers having always been on the best possible footing with the governors, such a step would only have excited a needless agitation. Accordingly, at the annual meeting, held on the 7th instant, the day before the publication of Dr. Collins's letter, it was almost unanimously "Resolved, that no individual be allowed to vote at any election, or at any general meeting of the governors, until three months after the payment of his first subscription."

Thus, at the very first general meeting at which the question had ever been discussed, the matter was placed on its proper footing; the trifling opposition offered to the motion being on the ground that it appeared to convey a reflection on the officers who had been appointed in the absence of such a law, although it was admitted that no improper advantage had been taken of its absence by any of the candidates.

Under these circumstances, is it fair to draw a parallel between the cases of the Aldersgate-Street Dispensary and the Liverpool Dispensaries?—or ought the officers of the latter institution to be charged with inconsistency, because they expressed their approbation of the conduct of the officers of the former charity?—I am, sir,

Your obedient servant,
W. H. DUNCAN,
Physician to the North Dispensary

Liverpool, Feb. 18, 1834.

ANALYSES AND NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

Annales d'Hygiène Publique et de Médecine Légale. Janvier, 1834. 21e Numero.

ONE of the most remarkable papers in the present number of the *Annales*, is an *Affaire d'assassinat*, which may be more appropriately entitled, a

Medico-legal Examination of the Remains of a Body that had lain in the earth for above Eleven Years.

IN the year 1821, a widow lady, of the name of Houet, residing in the city of Paris, disappeared; and certain persons, Bastien, Robert, and Robert's wife, who had taken the house, No. 81, Rue de Vaugirard, were suspected of having made away with her. A judicial inquiry was pending ever since, in the Court of Assize; but the accused, for want of evidence, had been set at liberty. Not long ago, however, some information was obtained touching a body said to have been buried for about eleven years in a particular garden. An investigation was accordingly set on foot; and by the dint of patient and ably-directed research, such satisfactory evidence was procured of the identity of the remains, and of the manner of the death, that the prisoners were convicted, and condemned to the galleys for life.

The first part of the inquiry—the juridical exhumation—was conducted by M. Boys de Loury. After excavating different parts of the garden for about five hours, one of the workmen hit upon a hollowed spot, in which there were bones. The greatest care was taken to uncover them with the least possible disturbance; they were evidently those of a human body, reduced almost to a perfect skeleton. A drawing was made of the parts *in situ*. The figure reposed on the left side; the head was bent forward on the neck; the vertebral column was curved; the right fore-arm was raised, so that the bones of the hand nearly touched those of the face. The pelvis was turned obliquely upwards, resting on the left haunch. The thigh-bones were raised considerably, and the legs were crossed beneath them. The colour of the remains generally, was between an ochre and a brown; and when the earthy matter was removed from some of the long bones, the uncovered parts were found to be of a deep red colour.

The grave was four feet deep, funnel-shaped, measuring five feet and a half in length at its upper part, but at the bottom only two and a half: its greatest breadth was about two feet. Some limestone had been placed over the body, so as to form a sort of vault. Having made these general observations, the particular parts were next examined. The skull was small and lengthy in its shape: it seemed, by the way, from the position of the head, that the body had been thrown into the grave head foremost. The parietal bones were very yielding: the sutures were well-knit; the teeth white, and had been used with care: three molars wanting, and one of the incisors carious. A small quantity of light-coloured or ruddy hair was found, having some grey mixed with it.

The state of the neck was particularly striking. The third, fourth, fifth, and sixth cervical vertebræ, as well as the right clavicle, were held together by a blackish mass, in the composition of which there could not be recognized any tissue. *This mass was surrounded at its lower part by several twists of a cord, two lines in diameter;* the cord was in a very decayed condition, and no knot could be found upon it. Minute attention was subsequently given to this *pièce de conviction*, and the obvious inference, that the deceased had been strangled, was fully borne out by all the direct and collateral circumstances.

Among the bones of the left hand was found a gold ring, of small diameter, carved in *facettes;* and several small well-formed finger nails were also discovered. The pelvis, from its shape and proportions, could only be that of a woman. Some portion of cloth, probably part of a stocking, was found near the legs; but upon exposure to the air, it rapidly crumbled to dust.

We need not enter into more minute details descriptive of the several parts found. Other reporters, MM. Orfila, Marc, Barruel, and Chevallier, were afterwards added to M. Boys de Loury; and three or four elaborate documents were drawn up, of the first of which we shall give the resumé.

"From the preceding facts, we feel ourselves justified in concluding,

"1. That these bones are those of a human skeleton.

"2. That the skeleton is that of a female.

"3. That this female had attained the age of from 60 to 70.

"4. That her stature was about 4 feet 8 or 9 inches (nearly 5 feet Eng.)

"5. That the hair of the female, which was of a bright blond colour in youth, was mixed with grey at the time of her death.

"6. That the hands were small.

"7. That during life, the bones had never suffered any injury.

"8. That this woman died of strangulation, and that the act was, to all appearance, homicidal.

"9. That the body must have lain for several years in the earth.

"Signed, &c."

A very ample report follows, stating the processes which were adopted for analysing chemically the various debris about the body. Thus the earth at the bottom of the grave was examined, as were also certain concretions which were taken to be biliary calculi, and the softened masses in the neighbourhood of the pelvis: but nothing very important was detected in this search.

Justice was satisfied by these investigations. The prisoners, who had been long suspected, were at length brought to trial (nearly twelve years after the murder), and have been condemned, for the remainder of their lives, to forced labour. They had a narrow escape of the guillotine: only for some mitigatory circumstances which induced the jury to recommend them to mercy, they would have been executed.

MEDICAL GAZETTE.

Saturday, March 1, 1834.

> "Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."
>
> CICERO.

PROPOSED UNIVERSITY IN LONDON,

NOT THE "LONDON UNIVERSITY."

In the annual report made to the general meeting of proprietors of the London University, on the 26th inst., they are informed that "the Council have not yet overcome the difficulties which impede their attainment of a charter of incorporation, but that they have taken measures to bring the subject before the Privy Council."

To the joint-stock company in Gower-street obtaining "a charter of incorporation," as King's College has already done, there can, we conceive, be no reasonable objection; but the truth is, that their demand is by no means so limited as these expressions would imply, inasmuch as it extends to claiming the privilege of conferring all degrees, excepting only those in theology. On the general question of their claims to a charter we shall not at present enter; but the power of conferring the highest honours in medicine, is a subject which involves too deeply the interests of our profession, to be suffered to pass unnoticed.

There exists, we believe, a very general feeling, that degrees in physic ought to be attainable in this metropolis. The high and increasing reputation of its medical schools, and the prodigious advantages afforded by its great hospitals, have long induced many to resort to it, despite of the bonus offered by the northern capital, in the shape of a medical degree. Indeed, it seems no more than consistent with common reason and justice, that the highest privileges should exist, and the highest distinctions be attainable, where the best and most varied opportunities of study are to be found; in short, that the great medical establishments of the capital should be recognised as Colleges, and amalgamated on equal terms into an University—or at least that those who have pursued their professional studies within their walls should, after the requisite probation, receive their degrees in physic. This is the view which those connected with all the great schools in London, with but one exception, we have reason to believe, have concurred in adopting; and the point will doubtless be among those which will occupy the attention of the Committee even now engaged in investigating the various subjects connected with medical education and polity. So reasonable does the desire appear to be of receiving the highest honours in medicine where the knowledge of the science has been acquired, that we expect to find that the difficulty, if there be any, will rather consist in determining where the privilege ought to be vested, than in conceding the principle of its being expedient to grant such power to some metropolitan institution.

Under these circumstances we should probably have refrained from making any observations upon a subject which is likely to be soon more efficiently discussed elsewhere, had not some of the proprietors of the establishment in Gower-street chosen the present moment again to step forward,—or rather, to steal, with silent and noiseless tread,—to the closet of the Minister, and endeavour, by private solicitation, clandestinely to obtain the boon they have so long coveted, and thus virtually to forestal the result of the parliamentary investigation which is already in progress. True, this request is indicative of that habitual modesty which characterizes all their proceedings: because, while other schools are content to abide the scrutiny, and take their stand on the basis of their merits, the proprietors of the *soi-disant* University would seem to shrink from the result of free and unfettered competition, and strive, with worldly cunning, or perhaps with conscious weakness, to intrench themselves behind a barrier of chartered prerogative and exclusive privilege.

The Council inform us, that they have taken measures to bring their claims before the Privy Council; and we know that with this view they very recently renewed their application at the Home Office—an application which, though periodically reported to have been at length unsuccessful, has made no step towards a favourable termination, since the royal assent was originally refused to it. Should they fail in these quarters—a result which we believe they themselves anticipate as all but inevitable—the next step will consist in an application to Parliament analogous to that which was made and negatived last session. And here we cannot but observe, that it is an extraordinary, and not unamusing illustration, of the inconsistency of poor human nature, to witness some of the very same persons who, in their places in the House of Commons, are wont to denounce all monopoly in general—and who, in the fulness of their liberalism, use the term almost as a watch-word—deliberately and perseveringly endeavouring, in their own particular case, to establish a monopoly in no degree less obnoxious than any of those which, *with* so commendable a zeal, they are anxious, in every other instance, to abolish. In the present case, too, such an application to Parliament becomes tenfold more glaring, by the request which it conveys being in direct opposition to the principles of the parties from whom it emanates, and to the general spirit of the times, as well as by the fact that no inconsiderable number of those who will be called upon to legislate are actually proprietors of the institution which it is intended to benefit, and thus have a direct pecuniary interest in the result. When it is remembered that a sum of money, which had been collected for a totally different purpose, was lately applied to the support of the Medical School in Gower-street, we may be permitted, without being very uncharitable, to surmise, that the contingent effect upon shares, now at a discount of 75 per cent., may by possibility have some influence on the votes of honourable members;—and that sanguine financiers may opine—as Dr. Johnson did of St. Andrew's—that their institution might get rich *by degrees*, were exclusive privileges bestowed upon it.

It is scarcely necessary for us to remind our readers, that we have from the first protested against the injustice and impolicy of bestowing on any particular establishment an arbitrary right, which would at once place it above the reach of its most meritorious rivals;—which would free its professors from the stimulus to exertion, which competition never fails to engender;—which would lessen the capital of intellect engaged in the difficult art of communicating knowledge to others, while it placed the election of public teachers in the hands of those incompetent to judge of their qualifications, thus perpetuating the worst vices of that system which has sapped to its foundation the stability of the great northern school;—and, lastly, which would continue and extend that most palpable and glaring source of corruption, in the conferring of degrees, by which the professors are constituted both the teachers and the judges of their own pupils—their interests being thus placed in direct opposition to their duty.

But it is argued by the proprietors of the establishment in Gower-street, with a view of counterbalancing this mass of inconsistency to themselves, injustice to others, and injury to science, that their institution is a "university," and therefore possesses, on this ground, merit superior to those of the private schools,—an argument which consists simply in first assuming a name which was marked by deception in its very origin, and then modestly claiming the advantages of the imposture. We hold, and are prepared to demonstrate to any unprejudiced mind, that the Medical School in Gower-street is in many respects inferior, and in no one respect superior, to numerous other schools in the metropolis; and that this relative position must continue, as long as medicine is a science more readily acquired in the wards of a great hospital than beneath the shade of a lofty portico. It is, we allow, both reasonable and just that the power of obtaining degrees in medicine should exist in the metropolis, and especially that English Dissenters should, in this respect, be freed from the inconvenience and disadvantages which they are placed under by the restrictive regulations of Oxford and Cambridge. But, in order to accomplish this desirable object, it is as unnecessary, as it would be unadvisable, to establish any monopoly.

There exist in London numerous schools of medicine, in which some of the greatest men of the past age formerly taught, and which are now adorned by successors not unworthy of those whom they have followed. It is long since* we advocated the expediency of establishing some general plan, by which these might be formed into one great university, of which the recognized schools would constitute the colleges, much in the same manner as exists in Paris; the duty of examining aspirants, and the privilege of conferring degrees, being invested in some independent body not concerned in teaching, and free from the sources of corruption above alluded to;—sources which have lately led to the doctorate in physic being often most unworthily bestowed, by which the very distinction itself has well nigh been brought into contempt. In this general scheme, we would give to the Gower-street Institution the same place as to the other great schools, keeping no privilege from it which it consented to share in common with its fellows. Let this be done, and all the advantages which the public could attain from the degrees being conferred in London would be at once secured; while all the evils which result from checking fair and liberal competition would be effectually avoided. It is against monopoly only that we protest, whether in favour of the so-called London University, or any other establishment whatever; and so just do we feel these objections to be, that we believe they only require to be fairly stated in order to be admitted. We shall only farther add, that from information which we have obtained from various satisfactory sources, we feel convinced that many influential members of Parliament—some of whom are connected with the London University—are averse to granting it any exclusive privileges; and we have little doubt that the present session, which will probably witness the renewal of the application for a monopoly in physic, will also enable us to record its complete and final rejection.

COLLEGE OF PHYSICIANS.

Monday, February 24.

SIR HENRY HALFORD, BART., PRESIDENT, IN THE CHAIR.

At the evening meeting of Monday last—the second of those for the season—the following interesting paper, from the pen of Dr. Macmichael, was read by the Registrar.

An Account of the Harveian Preparations in the Museum of the College of Physicians. By WM. MACMICHAEL, M.D.

It may perhaps appear singular to attempt to occupy the attention of this assembly by an account of any of the preparations in the museum of our College; but those of which I propose to speak are so old, so well authenticated, and connect themselves so remarkably with one of the most important and brilliant discoveries in physiology, as to induce me to hope that a slight sketch of their history will not be deemed altogether uninteresting. Up stairs, in the gallery, are six tables, or boards, upon which are spread the different nerves and blood-vessels, carefully dissected out of the body: in one of them, the semi-lunar valves of the aorta are displayed. Now it is generally supposed, that the idea of the circulation of the blood was chiefly suggested to Harvey by the appearance of the valves of the veins, exhibited to him whilst prosecuting his studies at Padua. And this conjecture is extremely probable; for what purpose could they serve but to prevent the return of the blood to the extremities? But valves placed at the origin of the aorta would equally demonstrate the same truth, since *their* obvious use must be to impede the return of the blood to the heart.

Thus this united apparatus must have been constructed to contribute to the due performance of the same function. The preparation I allude to would materially assist the teacher in proving his doctrine, and was doubtless employed by Harvey during the delivery of his Lumleian lectures; in the course of which he was for so many years endeavouring to convince his hearers of the truth of his novel opinions.

At this time of day, when the circulation is taught as a fundamental—almost as an elementary—doctrine of physiology, it appears scarcely credible that the discoverer should have spent nine years in satisfying himself and others of its truth; and when he ultimately resolved to give it to the world, to have deprecated the envy and enmity of mankind in the following remarkable words. "However, my resolution is now set down: my hope is in the candour of those which love truth, and learned spirits *.

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* See Medical Gazette, October 1832.

These relics are upwards of 200 years old; and that any thing like the aorta should now be distinguishable, shews the care and veneration with which they have been preserved by a family proud of the fame and glory of their illustrious ancestor. They were presented to the College by the Earl of Winchelsea in 1823, having been preserved at Burleigh-on-the-Hill, his lordship's seat; and in a letter, written to the president, Sir Henry Halford, that nobleman expressed a hope that they might be deemed worthy of acceptance by a body of which Harvey had once been so distinguished an ornament.

Harvey himself was married to a daughter of Dr. Launcelot Browne, but had no children; but the Lord Chancellor Nottingham, who was the ancestor of the Earl of Winchelsea, married his niece, who was a daughter of Daniel, the third brother of Harvey. Upon the death of the great physician, as he left no issue, various memorials of him were distributed amongst the different members of his family, who naturally would be desirous of cherishing his memory.

At Rolls Park, in the parish of Chigwell, in Essex, the seat of the late Admiral Sir Eliab Harvey,—conspicuous for his bravery at the battle of Trafalgar, where, in the Temeraire, a ninety-eight-gun ship, he gallantly followed second in the attack,—are painted on the pannels of the large dining-room, the portraits of Thomas Harvey, surrounded by those of his seven sons, of whom William, the physician, was the eldest. The admiral was descended from Eliab, the fifth son of Thomas Harvey; and after the admiral's death, which happened a few years ago, many documents were shewn to me, by the kindness of one of the ladies of the family, which proved the affectionate zeal with which they had been preserved by his collateral descendants. They consist not only of the patents of the appointments conferred by King Charles I. upon Harvey, but also of other marks of the high esteem in which he was held by that monarch. Amongst the latter is a document, proving, in the most unequivocal manner, the long-tried and unwearied loyal attachment of the subject to his sovereign, during the turbulent period of the civil wars. These records are the more curious, since we know, that besides the confidence placed in the physician by the king, Charles took an interest in his pursuits, was distinguished for his own love of science, and did all in his power to promote its successful cultivation. In his works, Harvey mentions, when speaking of the formation of the egg-shell, "that he had seen an exceedingly small egg, which had a shell of its own, and yet was contained within another egg, greater and fairer than it, which also had a shell too. And this egg I shewed King Charles, my most gracious master, in presence of many others."

Though the short tract in which Harvey made known his doctrine to the world has been characterized as one of the most admirable examples of a series of arguments, deduced from observation and experiment, that ever appeared on any subject, yet it is well known that the reception which the discovery met with from the public forms one of the most curious chapters in the history of philosophy; for it appears that its truth, after being at first denied, was at length universally admitted, but that its novelty was then called in question. The opponents of the doctrine endeavoured for some time to trace, in the writings of the ancients, passages which might ingeniously be perverted into some obscure allusion to the same theory. The clamour, however, at length subsided, and the merit and originality of its author were acknowledged and fully appreciated. But this was a period favourable to the progress of true knowledge; for the publication of the great work of Lord Bacon, followed, by a few years only, the announcement of Harvey's discovery; and the foundation of the Royal Society (to which, let it always be remembered, that physician mainly contributed), soon after established ex-

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* Eng. Ed. p. 49.

perimental science in this country, upon a basis secure and firm, from which it has never since declined.

Nine years after the death of Harvey, was published a curious treatise, entitled Γηροκομία Βασιλικὴ, or King Solomon's Portraiture of Old Age, by Dr. Smith. Whatever may be thought of the ingenious attempt of the author to prove that under the allegory of the last chapter of Ecclesiastes, beginning with the divine exhortation, "Remember thy Creator in the days of thy youth," is contained an anatomical description of the symptoms of extreme old age, the book itself is full of piety and learning. Nor does the author stand alone in his opinion; for many commentators upon the sacred writings have thought that the expressions which occur there, bear allusion to the different parts of the human body. The silver cord, for instance, is thought to mean the thread of life, or spinal marrow; the golden bowl to signify the heart; and the wheel at the cistern, the tubes and arteries about it. Now upon looking at that chapter in Harvey's work, which contains his description of the heart's action in propelling the blood, it is remarkable that the very phrase, nay, the identical term, is used by him, which is employed by the Royal Preacher—"Primum sese contrahit auricula, et in illa contractione sanguinem contentum (quo abundat tanquam venarum caput et sanguinis promptuarium et *cisterna*) in ventriculum cordis conjicit*:" which is thus translated in the old English version of Harvey's book:

"First of all the ear contracts itself, and in the contraction throws the blood, with which it abounds, as the head-spring of the veins, and the cellar and *cistern* of blood, into the ventricle of the heart."

Dr. Smith is so struck with the importance of the discovery of the circulation, that in a burst of enthusiasm he says, that Harvey had contributed more to the understanding of this and many other places of Scripture, than all that ever undertook that charge.

But, to return to the preparations, to which I first begged to call your attention. They were either made by Harvey himself, or brought by him from Italy in 1602. Similar ones were bought by Evelyn at Padua, and presented to the Museum of the Royal Society, formerly kept at Gresham College: these are now in the Museum of the Royal College of Surgeons. I am informed, that intelligent foreigners, who have inspected these preparations in London, assert, that similar ones are now nowhere to be seen in any anatomical museum on the Continent; though it is evident, from the plates which are to be found in the works of our older anatomists,—for example, from those which are in the Anatomia reformata of Bartholinus,—that the figures representing the distribution of the arteries and veins, are copied from *such* tables.

The art of injecting preparations, brought to such great perfection by Ruysch, the professor at Amsterdam, was not known at this period; and the tables now spoken of are of course rude in comparison with the ingenious and complicated preparations of modern days.

But, when we reflect upon the number of years which have elapsed since they were made, the great lecturer in whose hands they were exhibited, and the important discovery towards the elucidation of which they must have so materially contributed, it is impossible not to regard them with feelings of the deepest interest. The doctrine of the circulation has exercised the most important influence upon the speculations of all succeeding physiologists; but though Harvey disputed, by his discovery, the notion previously entertained that the use of the pulse was to refrigerate the blood, yet many points connected with this important function still remain unsettled.

Whether the temperature of the arterial be greater than that of the venous blood,—whether, during respiration, the changes of the vital fluid are brought about in the lungs only, or in the body at large,—are questions concerning which there are still warm and acrimonious disputes. Their direct solution might explain the immediate source of animal heat. Upon this subject, a modern writer of great originality* observes, that, wherever the carbonic acid is formed, the heat of the body must also be evolved; and that he has long been of opinion, that the acid is formed and the heat is evolved not merely in the lungs, *but all over the animal frame in the extreme textures*, where the blood is converted from arterial to venous.

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* De Motu Cordis, cap. v. p. 33.

* Dr. Stevens.

If to the novel light that has been so recently thrown upon the condition of the blood, in the state of health and disease, we add also the progress made in our knowledge of the nervous system, —I allude particularly to the double origin of those nerves which arise from the spinal marrow, and the two-fold functions of sensation and motion they perform,—we should be encouraged in our patient investigation after truth, and never forget the modest manner in which Harvey himself speaks of his own immortal discovery:—

"This may perchance fall out now in the motion of the heart,—that from hence the way being thus pervious, others, trusting to more pregnant wits, may take occasion to do better and search further."—*Ed. Lond.* 1673, p. 17.

RE-VACCINATION OF THE PRUSSIAN ARMY.

A circular, dated Berlin, March 15, 1833, signed by — Von Wiebel, Chief of the Military Medical Staff, declaring that as the results of the re-vaccination of the army, as already effected, fully proves its necessity, it appearing that, in the guards alone, 1425 out of 2641 exhibited the true vaccine pustule, the order, therefore, for re-vaccinating all recruits is made absolute, and the physician-in-chief of every division is required to procure and collect from all the several regimental surgeons, correct lists of all the men who have been re-vaccinated, as well as every circumstance coming under their observation, connected with the small-pox, and to report the same every year, at the end of February, to the Royal Military Council. This is followed by a statement, entitled "*Collection of the reported results of Re-vaccinating the Army.*" Whereas a number of individuals have been attacked with small-pox, and some have died in consequence, notwitstanding that strongly-marked scars unquestionably proved their having been vaccinated at an early age, it is, nevertheless, apparent that, in advanced years, they still are liable to be infected; and that such is likely to be the age at which they can be admitted to military service. Hence, on the representation of this fact, by the chief staff physician, to the commander-in-chief of the army, an order was dispatched, on the 26th March, 1831, to all the medical officers of the army, for the re-vaccination of all the men who may appear to be possibly liable to suffer; as well as all recruits whatsoever, whether they have marks of previous vaccination or not. This order was attended to by the several corps which it reached, as far as could be effected, and with the following results. In the 3d corps of the army, being at Erfurt, in 1831, where the small-pox was raging, the 24th regiment of Infantry, and the Fusileers of the 20th, were re-vaccinated, and, out of 6020 men, 2354 exhibited pustules; among which, more than one-eighth proved of the true vaccine character. In the 8th corps, 2784 were vaccinated, and 925 took; among which, also, about one-eighth proved true vaccine.

In 1832, 3942 of the 3d corps were vaccinated, and 1594 exhibited effects; but, as in the rest, somewhat more than one-eighth were true vaccine: in the 5th corps, of 3234 vaccinated, 2535 were affected in the aforesaid proportion. As yet, there are no accounts of the other divisions of the army, to which, however, the order has been sent and executed; the royal military chief being desirous that the whole army shall be placed in safety on this head. There being great doubts of the extent of this prophylactic measure, either from the possible failure of the original vaccination, or from the effect wearing out by time; at all events enough is established to prove the necessity of the measure; and it is notorious that, after the re-vaccination of the doubtful men, and the new recruits of the Fusileer Battalion, at Erfurt, not one became infected, although closely in contact with very many violent cases of the disease. The circular goes on to direct that a constant attention be paid to the re-vaccination of the recruits, and gives some minute military regulations for the purpose, demanding a regular return to be made as before mentioned, after the following manner:—1, name of the regiment; 2, place; 3, name of the men; 4, number; 5, if marked by previous vaccination (*a*) certain (*b*) uncertain (*c*) none; 6, the re-vaccination (*a*) regular effect, number (*b*) irregular, number (*c*) without effect, number; 7, repetition on those which failed, (*a*) with effect (*b*) without; 8, number of pustules going through their course; 9, account of cases occurring during the year, in spite of vaccination, (*a*) varicella (*b*) varioloid (*c*) small-pox; 10, general remarks.—*Rust's Magazin*, and *Lane's Monthly Archives.*

M. ORFILA.

The King of the French has bestowed a new mark of his favour on M. Orfila, by appointing him a Member of the Royal Council of Public Instruction—a vacancy having occurred by the death of M. Gueneau de Mussy.

CLINICAL OBSERVATIONS

ON

FALSE ANEURISMS OF THE BRACHIAL ARTERY.

By Baron Dupuytren.

From the "Leçons Orales," published periodically, under the Baron's inspection.

Venesection is commonly supposed to be so simple an operation as not to be deserving of much notice. That it is so considered is only an instance of the low opinion generally entertained of the offices of minor surgery. Hence, however, we can account for the accidents which have so repeatedly occurred within our observation during the last twelve or fifteen years. The hospitals abound with the higher class of students (*élèves*), who do not care for bleeding; and those are followed by a still greater number of pupils, who are admitted to practise without having ever performed venesection. How often may we see in the clinical wards five or six punctures made in the skin before the vein is opened! It is to this awkwardness that those phlegmons are to be attributed which ensue in those cases; it is to this that we must likewise attribute the great number of cases of phlebitis, which are latterly so common, and were formerly so rare. The ill state, or unfitness, of the instrument employed, also frequently leads to serious consequences. But it is chiefly to inattention to a few simple principles that we must trace the occurrence of those arterioso-venous aneurisms, diffused and circumscribed, to which we have had so often to call your attention. Towards the end of the year 1831 I shewed you two persons who had been operated on and cured of those aneurisms; and we shall certainly have occasion to shew you some more in the course of the present year. I can safely say that, for the last fifteen years, there has scarcely a year passed by without my being consulted twice at least about cases of this kind; and if other surgeons be similarly consulted, it is easy to infer the frequency of such accidents. Yet very simple precautions would serve to prevent them:—1. The operation ought never to be performed till the beating of the artery is previously felt; 2. The vein should never be opened in front of this artery; 3. Other veins should be preferred. It is true that the latter are sometimes difficult to be found, and that frequently they do not yield so much blood as may be wished; but these inconveniences are trifling compared with the accidents to which we at present allude.

It has long been usual to appropriate the name of false aneurism to a tumor formed of blood, confined either within the arterial sheath, or in the cellular tissue which surrounds the red-blooded vessels. At one time the disorder shews itself immediately after a wound; at another an interval more or less protracted occurs after the infliction of the wound. There are two kinds of false aneurism—the primitive, or diffused, and the consecutive, or circumscribed — differences which are founded on the time and mode of the effusion of blood from the arterial vessel. There are still other distinctions made relative to the parts which constitute the aneurismal cyst; but these belong to the consecutive kind. Sometimes the walls of the sac are formed of the surrounding cellular tissue. The lamellæ of this organic element, distended by the blood, which is extravasated slowly, or drop by drop, are pressed against one another, and form a cavity of variable magnitude, opening into the wounded artery by a small aperture. In other cases the arterial sheath is cicatrized during the employment of the compress, while the lips of the wound in the interior coats are still apart, or connected but with an imperfect cicatrix. When the compress is removed, the lateral effort of the blood raises up the filamentous sheath, isolates it from the fibrous tunic, and disposes it into the form of a cyst. In still other instances, the lips of the wound in the artery are closed by a membrane of new formation, resulting from the exudation of albuminous matter. There are cases on record of arterial wounds, which, after having been for a time staunched by a small clot supplying the solution of continuity, upon this clot being displaced by some accident, become affected with circumscribed false aneurism.

We have seen persons having sacciform false aneurisms, which it was attempted to cure by Anel's method—but in vain; some of them were operated on a second time; and in one case amputation of the limb was necessary.

True aneurisms of the brachial artery, at the bend of the arm, are very rare: the case reported in Pelletan's Clinique is probably the only well authenticated one on record. As for the two cases of this kind reported by Scarpa as occurring to Paletta and Plajani, they are not sufficiently exact; and the same may be said of those given by Saviard and Hodgson. Not so, however, with *false* aneurisms, whether primitive or consecutive, occupying this region; these were, in fact, the only aneurisms which were for a long time known. Galen, Celsus, Ætius, describe them, and give directions for their treatment. It is rather surprising that operations of this kind should have been practised so often, without discovering the laws of the general circulation; indeed, long after this great discovery, much ignorance prevailed as to the course which the blood took on the application of ligatures to the arterial trunks. Heister first pointed to the anastomoses. Before his time, the process was explained by supposing a second brachial artery. Sharp asserted this opinion as a matter of fact; but soon after Molinelli, in the Acta Bonon., and Charles White, demonstrated with sufficient clearness the agents in the collateral circulation. Subsequently, the injection of an arm in which the brachial had been spontaneously obliterated, gave Pelletan an opportunity of displaying the anastomotic passages. The lapse of half a century has given rise to much improvement in this part of science: at present every thing of this nature is foreseen, and the surgeon knows perfectly what will take place.

We have said that lesion of the vessel in phlebotomy was one of the most common causes of this sort of aneurism. The occurrence of the lesion is often the effect of mistake. There are persons in whom the artery lies so superficially,—its volume, its colour through the skin, and other peculiarities, are so striking,—that the operator has often been tempted to puncture it, until he fortunately recollected the caution required. On laying his finger upon the vessel, the pulsations are immediately perceived; the vein is found to lie more deeply at its side. Whenever a vein is thus situated—running alongside an artery—it ought to be treated with caution. MM. Sanson and Begin, in their excellent treatise on *Médecine Opératoire*, lay it down that we should *almost never* bleed where the artery passes: for my part, I should say, we ought *never on any account* to open a vein so situated. How often have I denounced the practice of bleeding over the brachial artery! I have constantly inculcated the propriety of choosing any vein but the one which is there placed. Even where the fold of the arm affords no other sufficiently eligible, I recommend bleeding in the fore-arm, or even the hand.

Injury of the brachial artery by the lancet may occur in different ways. Sometimes the instrument meets the artery and vein at a point where these vessels are not exactly in juxta-position, and there is presently an effusion of blood. Again, they form a communication by the wound, and an *arterioso-venous* aneurism is the result, or a *varicose* aneurism, as it is sometimes called; because in this case the vein is dilated by blood from the artery. This kind of injury differs essentially from the others that may be traced to the same cause.

The following is the case of false aneurism which has more immediately given rise to the preceding remarks. We have met with it within the last few days in the *consultation publique*.

CASE I.—*False Consecutive Aneurism of the Brachial Artery, from Venesection.*

A man, aged about 40, of a good constitution, was bled about two months ago by a midwife, who pierced both the vein and brachial artery. The blood immediately spouted out with violence, and it was of a bright red colour. When a jet takes place from a vein, it seldom exceeds one or two feet, rarely three; but when an artery is opened, the jet is much more energetic; we sometimes see it carried to the distance of five or six feet, often reaching the ceiling or the opposite wall. The mode too in which the fluid issues is characteristic; it comes in jerks, not in the regular stream that marks the venous flow in general. It may happen, however, that this peculiarity of the issue depends on the vein being placed immediately over the artery; for, in this case, the movements of the latter may be communicated to the vein, and at first sight it may seem that the artery is opened. Several years ago I was called upon, in great haste, by a distinguished physician, who had just bled a patient. Seeing the blood come out in jerks, he thought the artery was touched; but I presently recognized the mistake, although the gentleman, even to this day, is persuaded that the artery was injured. It would appear that, in the case under consideration, the midwife was aware of the mischief she had done, for she employed strong compression on the part, and applied a very tight bandage. The patient felt the parts benumbed, and found his fore-arm and hand swollen, owing apparently to the bandage; he also perceived the existence of a considerable ecchymosis, caused by the effusion into the cellular tissue; but there was no tumor immediately formed. The puncture in the artery was apparently very minute, and the compression must have closed it. But in about three weeks the aneurismal tumor made its appearance: at first it was very small, and marked by movements of dilatation and contraction, synchronously with the pulse. In the course of four weeks it was about the size of a pigeon's egg. On examining it, one half was found prominent, while the other was buried in the substance of the arm.

But how has the tumor been formed? When an artery is punctured, as by a lancet, the margins of the wound may be brought into contact by compression; but as soon as the latter ceases, and the patient proceeds to use the limb, the effort of the blood throws open the wound again; it infiltrates, and pushes before it the lamellæ *of the cellular tissue, which thicken and form a pouch: the pouch grows apace, communicating all the time with the artery* by the small aperture. This is exactly what happened in the case before us: the blood was at first compressed,—then it made an effort,—a pouch was formed,—it presently grew large, and all the characters of aneurism are now before us. If you notice the tumor with attention, fixing the eye steadily on a particular point, you will observe a movement of dilatation and contraction; and if you lay your finger on its summit, you feel it alternately raised and lowered. When the arm is bent, the movements are very visible; but when the fore-arm is firmly extended, the movements are not by any means so visible. It was thought formerly that these two signs infallibly proved the presence of aneurism; but we now familiarly know, that the mere vicinity of an artery is often sufficient to give rise to them,—and still more so, if the tumor be situated over the track of the vessel; so that suspension of the movements on the occurrence of compression, is not a positive sign. If we proceed to examine the patient, we find that the tumor is pointed, and that the integument at the point is exceedingly thin. A slight inflammation in this place would give reason to fear that an opening might ensue, attended by a fatal hæmorrhage. In order, then, to prevent so grievous an accident, we must adopt some prompt and efficacious method. Compression has been already tried without effect: besides, this mode of treatment is tedious, and may lead to gangrene; and in the present instance, it is inapplicable, on account of the wasting of the integument. Ligature is the proceeding that remains to be adopted. Now, in applying the ligature, in what way should we proceed? It would be undoubtedly the more secure plan to use two ligatures, one above and the other below the wound,—because in this way we avoid the communications which are sometimes formed when Anel's method is employed. But this operation involves several serious inconveniences. In fact, when we have suspended the circulation in the part by compression, we have then to cut through the integument along the tumor, to open the sac, empty it, find the aperture in the artery, (which is frequently no easy matter;) then tie the artery, without including the nerve, which is difficult enough, owing to the flow of blood from all parts. Even supposing the operation achieved as successfully as possible, the extensive wound in the integuments may occasion a phlegmon. The flow of blood, I have said, may much embarrass the operator: this is a point of so much importance as to deserve a few moments attention. In the course *of any operation, we are almost always sure of being able to suspend the course of the arterial blood by compression: this, however*, is not the case in regard to the venous blood; simply for this reason: in the former case, the compression acts on a single vessel; in the latter, it should act on a multitude of different branches at one and the same time, in order to be effectual.

Since, then, the applying a ligature to both ends of the artery, although more certain, is tedious and troublesome, and often very difficult, we may with reason have recourse to the method, which consists in applying a single ligature above the tumor. This method is much less troublesome than the other, for we avoid by it the infiltration of blood, and the greater part of the obstacles just alluded to. It is accordingly this process which is most commonly employed in the greater number of cases: yet we should not omit to add, that when it is applied to arterial parts which have numerous anastomoses, it fails. This is particularly observed to be the case in aneurisms of the primitive carotid and its divisions: the ligature placed below the tumor puts a stop to the pulsations in it at first, but they soon reappear; and the same thing may occur at the fold of the arm.

The reason why we have established a distinction between simple false aneurisms and those of the arterioso-venous sort, is, that in the former, the method of Anel arrests the pulsations, while, in the latter, it has not the same effect.

We shall now briefly describe the part which is the seat of the disorder. The arm is composed of several layers, in the following order:—first, (proceeding from without inwards), we find a smooth envelope, and then a fatty cellular layer, pervaded by a great number of lymphatic vessels, veins, and superficial nerves. a third layer, common to the whole contour of the arm, is composed of brachial aponeurosis; more deeply there are three sheaths, the outer and upper of which, as well as the posterior, belong to different muscles: the third, the most important in our present inquiry, is common to the biceps, placed superficially—to the coraco-brachial and anterior brachial, placed beneath; while between them is perceived the external cutaneous nerve, which pierces the coraco-brachialis above. At its outer and inferior side, this sheath contains the trunk of the radial nerve and an arterial branch: at its inner side, along its whole length, it embraces the humeral artery, with its two attendant veins, along with the median nerve, the relations of which to these vessels are of the highest importance: above, this nerve is external; in the middle, it is anterior; and below, it is internal. Thus, we must seek the artery above, inside the median nerve, and outside the cubital: in the middle, we must avoid, with the greatest care, to touch the median nerve, which the artery crosses in passing one time in front and another time behind. Below, we must constantly seek the artery outside this nerve, the cubital having now no longer any relation to it. Lesion or ligature of this nerve would entail a numbness or palsy of the limb. The internal edge of the biceps is also a good director in finding the brachial artery for ligature. On opening the sheath of the biceps, towards its inner part, the artery is at once perceived in all its relations to the median nerve.

In performing the operation, the patient was put in a horizontal position on a bed —the arm semiflexed; an incision, three inches in length, was made towards the lower and inner part of the arm; the skin, cellular substance, and the aponeurotic layer, were successively divided. Upon reaching the sheath of the vessel, the operator opened it with forceps and bistoury, but not above two or three lines. He then slid beneath the artery the flexible silver sound, by means of which he conveyed the ligature. On moderately tightening the latter, the pulsations ceased; but returned again, when loosed a little. Certain now that all was right within the ligature, he tied it definitively with two simple knots. The patient did not murmur during the operation, which was an assurance that the nerves were safe; and it may be added, that the man was encouraged by being shown an individual who had been perfectly cured by a similar operation.

CASE II.—*False Aueurism—Compression and the Ligature compared.*

A hawker, about 32 years of age, of a strong, dry constitution, being bled for violent headache, had the brachial artery opened along with the vein in the operation. The surgeon who bled him perceived the accident—the bright red blood—the jerks; yet he allowed the blood to flow till syncope appeared to approach. He then attempted to effect such a compression as would prevent further hæmorrhage, and conjured the patient to be sure the force was kept up, though he did not acquaint the man with the nature of what had happened. The puncture of the vein cicatrized; and the patient, not knowing that he had any thing to fear, left off the compress: a tumor presently made its appearance, and grew larger and larger every day.

On coming to the Hôtel Dieu, the tumor was as large as the closed hand, with all the characters of its aneurismal nature. But from a close examination of the symptoms, it was inferred that—1st, the opening in the artery was not large; 2d, that there was a defect of parallelism between this opening and that of the aneurismal sac; 3d, that the tumor received its blood only from one quarter; and, 4th, that the greater part of the blood contained within the sac was coagulated, and consequently that a well-managed compression would suffice to effect the cure. Compression was accordingly employed, and assisted by the action of ice; but as there was not much visible benefit derived from this method, the operation was agreed on at the patient's request. It was performed in the amphitheatre, the patient sitting in a chair facing the spectators, and the professor placed behind the arm affected. The several steps of the operation were like those of the preceding case; but the patient having fainted when the ligature was applied, and about to be partially tightened, it was necessary to wait till he rallied again, lest the nerve might have been inadvertently included. A simple dressing, with cerate, charpie, compresses, and a general bandage, was applied: the patient was then put to bed. No remarkable accident happened in the after treatment, except the occurrence of slight erysipelas, which was presently subdued. On the tenth day the ligature came off, and there was no hæmorrhage whatever. The pouch was opened; the clots were removed; suppuration took place; and the wound diminished daily. In about two months the patient went out perfectly cured.

It may probably be asked whether forced extension of the arm, kept up for some time, and assisted by ice and compression, would not have rendered the operation superfluous? Continual extension would, in the first place, have been very fatiguing and painful: it might produce anchylosis—a most serious inconvenience. Compressions with ice would no doubt have done much good, but they should be employed for a considerable time; and it must be allowed that they would not be unattended by danger. It is worth observing, that we have no instance of gangrene supervening in any case after ligature of the brachial artery, unless where the nerve has been tied. The most common accident after this sort of operation is the recurrence of the circulation in the tumor: when this has happened, it is necessary to tie both ends of the artery.

CASE III.—*Vein transfixed and Artery punctured—Aneurism—Operation.*

A young man, 22 years of age, a pork-seller, was bled by a medical man in the median basilic vein. The operator crossed the vessel from side to side, and punctured the artery: bright red blood issued forth, and spurted to a great distance. Perceiving the mischief that was done, the operator, having taken the requisite quantity of blood, was anxious to apply a steady compression on the wounded point. The hæmorrhage was at first arrested, but it did not fail presently to begin anew. The patient became uneasy, and presented himself at the Hôtel Dieu, where he was taken in. In nine days from the accident, the tumor had attained the magnitude of a nut: it was soft and fluctuating, and presented pulsations isochronous with those of the heart; and there were movements of expansion and contraction observable at the fold of the arm. On compressing the artery above, the pulsations ceased: they, on the contrary, were increased when compression was made below. The existence of aneurism was thus well established. The wound in the vein being well, there remained nothing to shew that it communicated with the artery. Ligature being considered the best mode of proceeding, it was performed next day. The patient was kept in bed, his arm in a state of supination. An incision, two inches and a half in length, was made above the fold of the arm, and along the course of the brachial artery. The subcutaneous cellular tissue was found infiltrated with blood; the fibro-cellular sheath surrounding the median nerve and the brachial artery was dense and thick, but easily lacerable; a very large vein, which ran across the incision, was divided. The sheath was opened, and the ligature passed, as it seemed, between the nerve and artery, by means of the canuletted sound and needle-formed stilette. But the patient suffered a sharp pain and a numbing sensation when the ligature was tightened, which shewed that the nerve was not free. This led to a new search, and a re-adjustment of the ligature. The pulsations ceased: no pain was felt on its being tightened the second time. Sticking-plaister, charpie, and bandage, as before.

No accident occurred during the after treatment. The forearm preserved all its temperature and natural colour. On the third day pulsations began to be perceived in the radial and ulnar arteries, but none in the tumor. On the tenth day the ligature came off, and the wound was nearly entirely healed: one angle of it only discharged a little healthy pus. On the nineteenth day the patient was able to leave the hospital, perfectly cured.

Here, then, was another successful instance of the benefit of a single ligature between the injury and the heart. However, we are not always so fortunate in managing so easily this dangerous affection: in a great number of cases it becomes necessary to tie both ends. The following case, which occurred in my private practice, will serve for an example :—

Case IV.—*Wound of the Radial Artery—False Aneurism—Two Ligatures applied.*

An envoy from Brasil, who arrived not long since in Paris, while mending a pen, and cutting the nib on his thumb-nail, let the knife slip out of his hand. It was thrown upwards several feet, and then came down perpendicularly on the anterior and exterior surface of his left arm, as it lay on the desk. The blade was very sharp: it pierced the skin and subjacent parts, and opened the radial artery. An abundant hæmorrhage took place. A surgeon, who was immediately called in, recognized the injury. Hoping to succeed in treating it by compression alone, he methodically applied compresses and a roller from the tips of the fingers to the seat of the lesion. His appareil remained undisturbed for several days, and there was no hæmorrhage during the time. When it was at length removed, to the surprise of all parties, the wound in the integuments was completely well; but meantime an aneurismal tumor was formed, which, however, it was hoped to keep down by persevering in the bandaging system; but the hope was vain—the tumor grew larger every day. I was called in, and I thought it right to propose ligature of the artery, to which the patient consented. It was done. One ligature was used, and the moment it was applied the tumor ceased to beat, as did also the radial and ulnar arteries. The wound was dressed; but scarcely was the dressing finished, when the circulation was re-established in the lower parts of the arteries just mentioned, and the tumor began to pulsate very distinctly. Another ligature was now applied below the tumor, when the pulsations ceased altogether. In about a fortnight the patient was quite well of his double operation.

Case V.—*Operation with a single Ligature where there was a Hæmorrhagic tendency—Remarks.*

A wine-dealer, aged 45, of good constitution, but subject to hæmoptysis, had himself bled by his medical adviser. The lancet was scarcely withdrawn from his arm, when the blood spouted in arched jets. Strong compression was immediately tried, but without success; and in the course of a month, when the patient came to me, he had at the bend of the arm an enormous tumor. The operation was imperiously required, and it was practised at once. The moment the ligature was applied, the pulsations ceased in the tumor; some persons, however, fancied they perceived feeble pulsations in the radial artery. The night after the operation the patient had a violent attack of hæmoptysis, which rendered it necessary to bleed him twice. By the way, it is not rarely observed that, after the ligature of a large arterial trunk, symptoms of plethora and hæmorrhagy are present; there are sometimes palpitations, uneasiness, temporary defect of sight, and oppression; sometimes epistaxis, hæmoptysis, &c.; but almost always in these cases, one or more bleedings have the most beneficial effects. In this man it was remarked that pulsations were very rapidly perceptible in the radial artery, in consequence, no doubt, of the state of the capillaries; in the tumor, however, they never re appeared. This circumstance ought probably to be attributed to the existence of a clot between the artery and the tumor. But there is enough in the case to warn us to be prepared for the recurrence of pulsations in the tumor, where the anastomoses are numerous, and the circulation is soon restored to the vessels in which it had ceased. The patient in the present case was happily not in the predicament alluded to; he got well rapidly, and left the hospital about four weeks after the operation.

I shall conclude with an observation to which I attach some importance—namely, that ligature of the arteries, when it is effected above their lesion, is almost always successful when that lesion is recent, and when the margins of the opening in the vessel are fresh, and disposed to unite; but that this operation presents far fewer chances of success when the lesion is old, and the margins cicatrized and incapable of adhesive inflammation. Ligature of the upper end of the artery suffices in the former case, whether the centre of effusion be in communication with the external air or not; but nothing less than ligature of both ends will be sufficient in the latter. There is no exception to this rule, unless where the artery which is injured lies at the very extremity of a limb, its numerous and varied communications then render ligature of both ends indispensible. And the theory which this rule comprehends, seems to me to explain certain facts which have hitherto appeared difficult to be accounted for.

A DETERMINED IMPOSTOR.

In the course of last summer M. Dupuytren was called upon to examine a person who stated that he had been set upon by assassins, in the Bois de Boulogne: but he turned out to be an impostor; and M. Dupuytren, in making some remarks on his case, related the following anecdote:—

One evening as Napoleon was walking in the park of Saint Cloud, a young man rushed precipitately out of one of the thickets which terminate the principal avenue, and cried "Thieves! murderers! Save the First Consul!" He fell senseless near the group that surrounded Bonaparte; and two wounds were found upon his person, which bled copiously. When he revived, he mentioned that he was a student; he had been walking in the park, he said, when he happened to light upon some conspirators who were in ambush awaiting the moment to assassinate the First Consul: he broke in upon their retreat, and thus became the victim of his loyalty. The gates of the park were closed in a moment; search was made in all quarters for the assassins, but in vain. The young man persisted in his story; he was examined and cross-examined without deviating in the least in any of his details. It was about fifteen years after, that he confessed he inflicted the wounds on himself.—*Annales d'Hygiène.*

NEW MEDICAL WORKS.

Illustrations of Cooper's Surgical Dictionary. By W. P. Cocks, Surgeon. No. 42. 8vo. 2s. sewed.

The Dublin Journal of Medical and Chemical Science. No. 13. 8vo. 3s. 6d. sewed.

Observations on the Ulcerative Process, and its Treatment, particularly when affecting the Leg. By W. Eccles. 12mo. 3s. 6d. boards.

WEEKLY ACCOUNT OF BURIALS,

From BILLS OF MORTALITY, *Feb.* 25, 1831.

Abscess	1	Heart, diseased	3
Age and Debility	54	Hooping-Cough	15
Apoplexy	9	Inflammation	35
Asthma	22	Bowels & Stomach	8
Cancer	2	Brain	4
Childbirth	6	Lungs and Pleura	15
Consumption	60	Insanity	4
Constipation of the Bowels	2	Liver, diseased	8
Convulsions	34	Measles	9
Croup	3	Mortification	2
Dentition or Teething	12	Paralysis	5
Dropsy	17	Small-Pox	3
Dropsy on the Brain	7	Spasms	4
Dropsy on the Chest	3	Stone and Gravel	1
Fever	11	Venereal	1
Fever, Scarlet	8	Unknown Causes	114
Gout	1	Stillborn	31

Increase of Burials, as compared with the preceding week . . . } 265

NOTICES.

We are requested by Mr. Grantham, of Crayford, to thank Dr. Dunsford for his politeness towards him. We think our readers probably understand Mr. G.'s views on fractured patella sufficiently well from his communications already published.

S. Y. would have us do what we think rather an unreasonable thing—to print his letter, containing assertions, without proofs, against a gentleman whose discoveries are before the world, and open to all free and fair discussion. If, however, S. Y. will write us a letter, bearing his real signature, we shall publish it, even though it contain only his opinions.

W. WILSON, Printer, 57, Skinner-Street, London.

THE

LONDON MEDICAL GAZETT

BEING A

WEEKLY JOURNAL

OF

Medicine and the Collateral Sciences.

SATURDAY, MARCH 8, 1834.

LECTURES ON THE THEORY AND PRACTICE OF MIDWIFERY;

Delivered at the London Hospital,

By Francis H. Ramsbotham, M.D.

Lecture XXII.

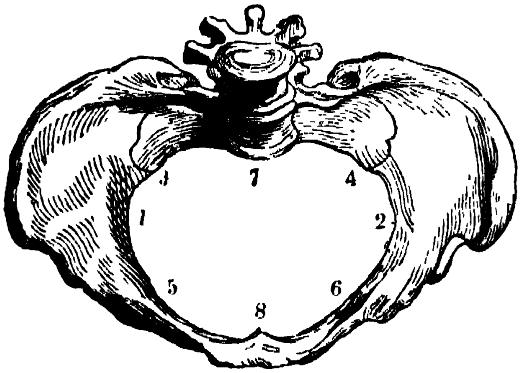
LABOUR.

NATURAL LABOUR.

We resume to-day the subject of *natural labour.*

Recapitulation.—We learned at the last lecture that all labours might be conveniently divided into three stages; that the first terminated with the dilatation of the os uteri, and the rupture of the membranes; the second with the birth of the fœtus; and the third with the expulsion of the placenta. We learned that the first stage is generally the longest, the most tedious, and the most distressing to the patient; that the pains in the first instance are short, occur at long intervals, and are slight in intensity; and that they naturally increase, both in power and frequency, as the labour advances. We learned it was desirable that the membranes should be allowed to rupture of their own accord, and that they should be preserved entire, if possible, until they had performed the whole of their office,—that of dilating the os uteri, the vagina, and the external parts.

We also learned, that the head presents in the great majority of cases, and that the vertex is usually the most depending part;—that there is a great variety of positions in which the cranium might offer at the brim, as, for instance, with the face to the right or left ilium;—to the right or left sacro-iliac synchondrosis;—to the right or the left groin;—looking directly back towards the spinal column, or forwards to the symphysis pubis.



The figures indicate the direction of the face in the different positions of the head, described in the last lecture.

I also mentioned, that it was wisely ordered by nature, both that the vertex should be the presenting part, and also that the face should be inclined backwards; because the head will pass through a much smaller aperture, if the vertex be placed downwards, than if any other part offer itself;—it is also better adapted to the passage through which it has to traverse, and altogether occupies less space, when the face is directed backwards, than when it turns forwards.

Phenomena observed during the second stage.—When the mouth of the womb is entirely dilated—whether that occurrence have taken place previously to, or after the rupture of the membranes—it becomes as it were obliterated; the vaginal and uterine cavities form one continuous canal, and the division between them is not easily discernible until after the child's expulsion. The discharge of the liquor amnii is usually followed by a respite from pain, of longer duration than had been experienced for some time before; but when the uterine contractions return, they are mostly increased, both in length and strength; they are more forcing, and are attended with bearing-down efforts of greater or less violence. Under these expulsive throes, the pulse, which was quicker than ordinary during the first stage, becomes even more accelerated; there is increased heat of skin; and soon a copious perspiration breaks out; the mouth often becomes parched; the breath is held in; and those voluntary muscles, whose action assists the uterus, are called powerfully into requisition, to aid the uterine energies. The patient tightly grasps whatever can give her steadiness and support, places her feet against some unyielding point, suspends her respiration, and strains with all her might. Although the pains during the progress of the second stage are stronger than in the first, still the intermissions are more decided, and the intervals of ease longer; they are endured with more composure and fortitude; and the woman usually slumbers between each paroxysm, even although she had been unable to sleep earlier in the process, in consequence of her irritability or anxiety. This inclination to dose should be indulged, as it both keeps the mind in a quiet and calm state, refreshes the spirits, and restores the bodily powers. At other times, from the moment the liquor amnii is evacuated, the efforts of the uterus become redoubled, as though some fresh excitement was applied. This, indeed, may probably arise from the os uteri being irritated more by the bony head than by the soft cushion previously interposed between itself and the presenting part.

After the escape of the liquor amnii, the fœtal body is more or less compressed, in proportion to the uterine exertions, and the resistance offered by the passages. It is therefore folded into lesser space, and the chin is directed more forcibly against the chest, so that the neck is bent more into a curve.

Progression and recession of the head.—I have before mentioned, that the membranous bag, while entire, is tense, and protruded during each pain; that it becomes lax, and the water recedes, when the pain goes off. The same thing also happens with regard to the head, so far as protrusion and retrocession are concerned. Even after the membranes are broken, we find that the head, with each pain, is forced a little downwards; and in the absence of pain retreats sometimes to a considerable extent. This is particularly remarkable when the head is passing through the outlet of the pelvis. We shall very frequently perceive, especially in first labours, that it is almost entirely expelled when the pain is urgent; but when remission occurs, it again recedes, and is perfectly withdrawn within the parts; and to such an extent has this been observed, as to have given those not well acquainted with the process an idea that the uterus had ruptured, and that the child's body had passed partly into the abdominal cavity. Here, again, we cannot help remarking the beauty of nature's ordinances: it is impossible, indeed, to contemplate a single provision, even of the minutest character, adapted to the exigencies of gestation and labour, without being fervidly and awfully impressed with the extent of that wisdom, power, and benificence, which established the laws, and controls their operations.

The advantage of this retrocession consists in the removal, for a time, of that distending pressure which obtains when the head is propelled downwards. If there were to be a constant urging forward, without the least relief to the parts, throughout the progress of the labour,—even under the most common natural case, in which not more than the usual time was consumed,—the soft structures must suffer very considerable injury; the vessels must be more or less strangulated; the circulation would be suspended or impeded; inflammation would almost be a necessary consequence; and gangrene would generally follow. We are therefore to hail this recession of the head in its progress through the pelvis as a fortunate occurrence for the woman; since it relieves her from present pain and future danger. It is also to be regarded as a good sign, inasmuch as it proves that the cavity of the pelvis is tolerably capacious.

Turning of the head.—When the head, then, has entered so low into the pelvis that the forehead and occiput impinge respectively on the internal surface of the tuberosities of each ischium,—inasmuch as the long diameter of the head, while in this situation, is opposed to the short diameter of the pelvic outlet, and exceeds that diameter by half an inch,—it is impossible for it to escape in that direction. A change is consequently effected: the face is thrown into the hollow of the sacrum, and the occiput under the arch of the pubes. And I must again insist that this turn is not voluntary on the part of the infant, but entirely mechanical, and depends on the resistance met with by the head in its progress through the passages; the inner surface of the ischial bones,—which somewhat approach each other as they descend,—and the spinous processes of the same bones affording an inclined plane, along which the head may be directed; the hollow of the sacrum offering an unoccupied cavity into which the face may be received; and the arch of the pubes an aperture, through which the occiput may, without much difficulty, insinuate itself. The moist state of the vagina, also, lubricated by its own mucus, by the gelatinous secretion poured out from the glands of the os uteri, and by the liquor amnii but recently discharged, tends in no small degree to further the natural inclination of the head, and facilitate its turn. Some practitioners, indeed—among whom I may mention my esteemed friend Dr. Thatcher—suppose that the muscles situated within the pelvis—the pyriformes, the obturatores interni, and the coxygei, tend in no inconsiderable degree to give the head its proper inclination. For my own part, I think the change in situation sufficiently accounted for by the more simple application of mechanical principles.

It must be borne in mind, that this alteration in position does not commence until the head is fully lodged within the pelvic cavity.

Compression of the head.—We also remark, —especially in first labours, or any case where there is much resistance,—that the head, from pressure, assumes somewhat of a conical figure, the bones of the cranium overlapping each other, so as to diminish the lateral diameter. In consequence of this decrease in volume, the scalp becomes corrugated, puckered at the vertex into three or four folds, very evident to the touch, and observable, *cæteris paribus*, in the same degree as the head is compressed. Pressure to such an extent is seldom injurious. After a time, however, when the head has remained long within the pelvis, and especially if it be impacted, this corrugated feeling of the scalp disappears; and instead of it, we observe a soft puffy tumor in the same situation, to which I shall hereafter have to call your attention more particularly.

While the head thus continues in the pelvis, both before and after its turn is effected,—being compressed by the pelvic bones, and reciprocally exerting equivalent pressure on the soft structures within the cavity,—another most distressing symptom arises, bringing with it great increase of suffering, but not generally interfering with uterine action, or retarding the progress of the labour;—I mean cramp, of the most violent character, affecting the calf and sole of the foot. This is consequent on the compression to which the great sciatic nerve is exposed at this stage of the process; and is so painful that the patient cannot restrain her screams.

Exit of the head.—The vertex, then, of all the cranial surface, first appears externally, being protruded with each pain, and receding when the pain goes off; so that in the interval the head is again received entirely within the pelvis. Another pain causes a farther protrusion of the head: the labia now become opened; the anus dilated; the perineum distended, heated, and very much thinned; so that it feels almost like wet vellum. In this plate of Smellie's, you observe the extended perineum well displayed: and you see that the inner membrane of the rectum is in some degree exposed to the hand when applied to the perineal tumor. This exposure is not injurious: no harm arises from it; and sometimes the dilatation occurs to a greater extent than is represented even here.

In this way, retreating when the pain goes off, and advancing when it returns, the face sweeps along the sacrum, coccyx, and perineum; the chin slowly recedes from the chest; the occiput turns up under the arch of the pubes; the perineum slips back over the partially extruded face; and the head is by degrees expelled. During the passage of the head externally, the pains are even more forcing than have yet been experienced: the woman bears down more strongly, makes a greater effort, and calls forth the utmost power of the abdominal muscles and diaphragm, to aid the uterine contractions. It appears as if all the vital energies were directed towards the accomplishment of the object nature has in view: most of the muscles of the body participate in the general struggle; a violent trembling, which it is impossible to control, frequently pervades the whole frame; and at the moment the head emerges, a piercing shriek will mostly escape the patient, as though involuntarily. When the head is on the point of passing, the contents of the rectum are usually squeezed out; and on its entire protrusion, the perineum, again, from its own elasticity, recovers its former size and appearance; it is collected round the neck of the child,—the woman is completely relieved from the distending force, and consequently from the agony she endured. She will now generally express some strong sentiment of gratitude and joy; or perhaps her feelings will only find utterance in tears.

Under all states of the system, the sudden removal of intense pain brings with it a sensation of positive pleasure; and in no case is the instantaneous transition from extreme misery to actual joy more conspicuous than immediately on the delivery of the head, especially if it be a first birth;—to which, indeed, the preceding remarks are more particularly applicable. A longer interval of ease follows the expulsion of the head than had occurred since the perineum first began to be extended. In a very few minutes, however, action is again established, for the purpose of completing the delivery.

Exit of the body of the child.—You will observe, that after the head has effected its turn, with the face into the hollow of the sacrum, and is passing through the outlet of the pelvis, with its long diameter in the same direction as the long diameter of the inferior aperture,—namely, from the fore to the back part,—the shoulders are at the same moment entering the cavity, and passing through the brim, with their long diameter in the same direction as the long diameter of the superior aperture, which is from side to side; so that the child is here adapted, both as it regards its head and its shoulders, to the pelvis, in such a way as to make its transit the most easily. After the head is born, however, when the shoulders have come down to press upon the outlet of the pelvis, their long diameter is opposed to the long diameter of the outlet, and they seldom can make their exit in this situation, unless the child be small or ill-formed: but most usually they also effect a turn, similar to the turn already described by the head; one of them being directed into the cavity of the sacrum, and the other insinuating itself under the arch of the pubes. Through the outlet of the pelvis, then, the child is expelled sideways, one shoulder and arm distending the perineum, and the other offering itself anteriorly. One pain may be sufficient to effect this turn and expel the shoulders; or two or three may be required. When, however, the fœtal body is so far protruded that the parts are again distended, the patient again experiences pain; not such violent agony, certainly, as when the head was being expelled, but the same feeling of forcible distention;—the same sensation as if the parts were being rent. A short time only elapses before the uterus again acts, to expel the breech; the child in the interval remaining half born, the perineum somewhat on the stretch. As the breech takes up less room than either the head or shoulders, it is usually extruded with slight exertion; the legs and feet either pass directly, or remain a minute or two in the vagina, and are ultimately expelled by the vaginal fibres: the birth of the child is then perfected, and the second stage of the labour brought to a close.

Varieties in the time occupied by the passage of the child.—The time occupied by the passage of the child, after the rupture of the membranes, is as uncertain as the period required for the dilatation of the os uteri and the accomplishment of the first stage. Sometimes the same pain under which the membranes burst, expels the head, and perhaps the body also; at others, very many hours of wearying suffering are sustained before the head emerges; and the same uncertainty with regard to time applies—but in a very limited degree—to the passage of the shoulders after the head is born: sometimes scarce a moment intervenes, sometimes a considerable space; but usually the child is entirely expelled within five minutes after the head has passed.

Symptoms of a speedy termination to the labour.—The symptoms of a speedy termination to the labour are, that from the beginning we should find the os uteri lax, soft, thick, moist, cool, and not tender; that we should find the vagina also soft, moist, relaxed, and cool, and the perineum easily distensible; the pelvis well formed; the head directed with the face laterally, or looking diagonally backwards, with the vertex downwards. With such indications, if the woman be in good health, and the pains pretty active, we may expect a speedy termination to the case.

Symptoms of a tedious labour.—The symptoms of a tedious labour are exactly the contrary of those I have just mentioned:—that we should find the os uteri thin, hard, unyielding, dry, and tender, and feeling round the presenting part of the head as if a cord were tightly encircling it; that the vagina and perineum should be dry, hot, narrow, and constricted; that the head should be wrongly placed; the pelvis small; or the uterine action feeble: any of these features displaying themselves, will indicate the probability of a protracted struggle.

In general we shall find that when the os uteri has been rigid, and dilates with difficulty, the perineum and vagina are also rigid, and the labour is therefore tedious from the commencement to the close: but this is not by any means an universal remark; for sometimes the perineum will give way very easily after the os uteri has opened with great difficulty; and in other cases the vagina and perineum will be very rigid, when the os uteri has dilated tolerably easily. It may be set down as a general rule, that the vagina and perineum dilate with the most difficulty in first labours: and this observation is more universally applicable to these organs than to the os uteri. It is not easy to account for this circumstance, except on the principle, which I before quoted from Denman—that parts which have once taken upon themselves an action, or undergone a change, are more disposed to undergo the same change and take upon themselves the same action upon future occasions; or as the same intelligent and judicious writer, not quite so philosophically, remarks, when speaking of the little disposition the vagina and perineum shew to relax, in most first labours,—"that this inaptitude arises not from rigidity only, but, if we may be allowed the expression, from ignorance how to dilate." We very seldom find the vagina or perineum more rigid in subsequent labours than in the first, unless that rigidity is the consequence of a cicatrix produced by sloughing. It is possible that after a first labour inflammation of the vagina may occur, which may terminate in slough; that slough will separate, the ulcer will heal, a puckering will take place, and a cicatrix will be left; by which processes the capacity of the canal is much diminished, and its dilatability impaired: but this is an accidental occurrence, and must be reserved for future consideration.

THIRD STAGE.

The second stage, then, is terminated on the birth of the child, and the third stage consists in a continuation of the same efforts for the expulsion of the placenta.

Varieties in the time occupied in the expulsion of the placenta. — This stage also varies much in respect to time: if the uterus be vigorous and active, the placenta is generally expelled quickly; but if uterine action had been feeble during the former stages of the process (particularly if the labour had been lingering, or the child had been extracted by mechanical means), a comparatively long period usually elapses before the placenta passes. In some instances, indeed, the uterus does not act to expel it at all, and the introduction of the hand is required for its removal. I have sometimes known the placenta thrown out of the vagina by the same pain that expelled the child. More frequently, ten, fifteen, or twenty minutes, elapse before the placenta is expelled from the uterine cavity into the vagina, and even then it may lie in that cavity for hours before it passes externally. Those contractions by which the expulsion of the placenta from the uterus is effected, are also attended with suffering; not, indeed, nearly approaching the violence of the pains under which the fœtus was expelled, but more like the uneasy sensations experienced during the commencement of the first stage: they are referred principally to the loins and upper region of the sacrum, and are scarcely complained of. It is seldom that one pain expels this mass even out of the uterine cavity; more frequently three or four follow each other, at tolerably regular intervals; and it descends into the vagina by degrees.

When it has passed from the uterus—if the case be left entirely to the natural powers,—the muscular fibres of the vagina complete its expulsion; but as this canal has suffered severe and unusual distention during the birth of the child, we cannot expect that the muscular coat can regain its previous tone in an instant, so completely as to embrace the mass firmly and expel it immediately. It consequently remains within the vagina, until the fibres have recovered sufficiently to act upon it. This requires a very different period in different instances: sometimes five or six hours will elapse; most usually it is thrown off within the hour.

Separation of the placenta from its uterine attachment. — Previously, however, to the placenta being expelled out of the uterine cavity, it must be separated from its uterine attachment. This separation is produced exactly by the same action which causes its extrusion—viz. uterine contraction. After the birth of the infant, the general volume of the uterus and the capacity of its cavity being diminished in proportion to the degree of contraction it has undergone, it necessarily follows that the uterine space before occupied by the placenta is proportionately decreased, and shrinks into a less surface.

As the placenta is a perfectly passive body—as there is no power inherent within its own structure, by which its maternal face can be diminished in any degree corresponding with the diminution of the internal surface of the uterus—the very shrinking of the uterine parietes causes the mass to lose its former hold; it spontaneously falls from its attachment, and would remain loose in the uterine cavity, unless extruded by a continuation of uterine action. This simple contraction, then, causing the uterine membrane to slip away from the placental surface, both separates it from its connexion and expels it from its cavity. The placenta passes through the vagina inverted; so that its fœtal face becomes external: the membranes attached to it are also turned inside outwards, and are flapped over its maternal surface.

Loss of blood always accompanies separation of the placenta.—There is always a loss of more or less blood accompanying the separation of the placenta; and this blood appears externally upon the linen. The quantity varies exceedingly; sometimes it is not more than an ounce or two, at others it amounts to some pints, constituting a most violent hæmorrhage. Even after the placenta has been expelled from the uterine and vaginal cavities, the process of uterine contraction does not cease, but continues for the purpose of arresting the flow of blood by the closure of the vessels; for preventing the possibility of inversion of the organ; and for silently and gradually decreasing the bulk of the uterus to its former small unimpregnated state. Should the uterus not contract; in proportion to the flaccidity of its parietes, the distensibility of its cavity, and the perviousness of its vessels, would be the danger of hæmorrhage. I am not prepared to say that dangerous flooding must invariably occur, if the uterus did not contract completely; because it is possible that coagula might form at the apertures which I have already described as existing in the sides of the uterine veins; and if the heart's action were not powerful enough to dislodge those coagula, the loss of much blood might be by them prevented. But this kind of plug is a most inefficient security against all varieties of uterine hæmorrhage; and no woman can be considered safe from the loss of blood until the uterus is firmly, entirely, and permanently contracted. It is most desirable, then, that the uterus should continue to contract even after the expulsion of the placenta,—to prevent hæmorrhage by closing the open vessels, to prevent the possibility of its being inverted, and to restore the uterus to its former small unimpregnated size.

My valued friend, Dr. Merriman, in his excellent work on Difficult Parturition, has given an abridged translation of a case of natural labour witnessed and published by M. Sacombe, of Paris; during which he had an opportunity—however indecorously embraced—of watching by the eye the progress of the different stages; and was enabled to minute with accuracy the accession and duration of each pain. This history, curious of its kind, and almost unique, may be considered a very favourable specimen of parturition under a primary labour; and I recommend it, as divested by the Doctor of much high-flown and fulsome language, to the attention of those of you who may be desirous of consulting such a document.

ON THE RELATION BETWEEN THE IRIS AND PALPEBRÆ;

With an Inquiry into the Functions of their Nerves and those of the Face, and some Remarks on Sir Charles Bell's Experiments and Observations.

By John Walker,
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In a paper which I had the honour to have read before the Philosophical Society of Manchester, and which has since been published under the title of "An Essay on the Physiology of the Iris," I endeavoured to establish a new view of the relations and sympathies of the iris. All preceding theories had assumed that the changes of the pupil are the result of a sympathetic action between the iris and retina, and that these two are related to each other in some manner similar to the ordinary relation between a muscle and a nerve. It is not my intention here to repeat the arguments there adduced; from which I came to the conclusion that the motions of the iris are independent of the retina. I may, however, briefly allude to one or two points; such as the fact that the motions of the iris are often complete when the retina is in a state of perfect paralysis; that the retina is not a nerve, in the ordinary acceptation of that term, but a part endowed with a particular function through its own nerve, the optic; that when the retina is in a state of inactivity, during sleep, the pupil is powerfully contracted; that the iris is, to all intents and purposes, a true internal eye-lid, its actions corresponding with the palpebræ, both being contracted during sleep, both expanding the moment we awake; that the motions of the iris are probably dependent upon this association with the eye-lids, as well as upon its own sensibility to light, &c. To establish its connexion with the palpebræ, I referred to the ophthalmic ganglion, which gives off the ciliary nerves which go to the iris. I pointed out that this ganglion is formed by two nerves, branches of the third and fifth, which are also distributed to the eye-lids, and that consequently the iris and palpebræ are anatomically and physiologically related. I ventured to deduce from these premises, that the sympathies and relations of the iris are with the palpebræ, and not with the retina, as is generally taught and believed. I argued, that the sensibility to light is derived from the fifth pair of nerves, and that, consequently, the eye-ball generally, and the eye-lids, are all subject to its influence; and that the retina is simply the medium for conveying pictorial representations to the brain. Nor can there be any thing more objectionable in this view than in the parallel case of the tongue, which derives its sense of taste, as well as its common sensibility, from the fifth pair of nerves; a fact admitted by all physiologists. But with respect to the motions of the iris, I conceive them to be regulated by the ophthalmic ganglion — that the branch of the fifth pair probably gives it the power of contracting, whilst its dilating property is to be attributed to the third pair. I cannot but consider this as a fair deduction from analogy with the motions of the eye-lids. Anatomists now agree that the iris is possessed of two distinct sets of fibres—

namely, a set constituting an orbicular or sphincter muscle around the pupillary margin, and another set, termed the radiated fibres, proceeding from the ciliary margin. Indeed it is very easy, in the living eye, often to distinguish the two sets of fibres In one particular instance I have observed the two sets perfectly distinct, with considerable difference of colour in them. I consider, then, these two sets of fibres as two distinct muscles; that they are strictly analogous and related to the two muscles of the palpebræ, and that the sphincter fibres of the iris correspond with the orbicularis palpebrarum, as the radiated fibres do with the levator palpebræ. That their actions correspond is evident: as before intimated, the sphincter fibres of the iris are contracted in sleep, so are those of the orbicularis palpebrarum; when we awake, the radiated fibres have the preponderance, so has the levator palpebræ. In adapting the eye to different distances, the same relation is observed: in looking at distant objects, the pupil dilates and the eye-lids are separated, whilst the reverse happens in viewing near or minute objects.

But it is said, you are endowing the branch of the fifth pair, which goes to the iris, with the power of motion, whilst physiologists assert that it merely bestows sensibility upon the eye. On referring to the anatomy of the fifth nerve, we find that it gives different branches to the iris as well as to the eye-lids. Now we know that the fifth is a double nerve, possessing, or contributing to, two distinct properties—viz. sensibility and mobility. The latter seems to be overlooked in all its branches, except those supplying the muscles of the jaw. It appears to me, in the case of the iris, that this nerve bestows upon it, not sensibility merely, but, as before mentioned, the power likewise of contracting its aperture; whilst *the dilating* power is acquired through the branch of the third pair. It is worthy of notice, that the iris receives at least two or three branches from the fifth pair; one uniting with a branch of the third, to form the ophthalmic ganglion, and one or two other branches afterwards, which pass with the ciliary nerves to the iris: the latter, it seems probable, for the purpose of bestowing upon it sensibility, whilst the ganglion presides over its motions. It would appear that injury or disease of either nerve would arrest the functions of the ophthalmic ganglion, presuming it to be the regulator of the motions of the iris. In Magendie's experiments, after dividing the fifth, the pupil became dilated and motionless. In Mayo's experiment of dividing the third, the same occurred. Cases have been observed also, of paralysis of the muscles supplied by the third, where the iris was also paralysed and the pupil dilated. Some writers have stated that the ciliary nerves are, in some animals, supplied merely from the fifth, and others simply from the third pair; so that although both are probably essential to the perfect motions of the iris, yet it seems likely that sometimes either alone is sufficient for this end.

The iris is evidently a part of great complexity. I know no better term to describe its varied actions and properties than that of internal eyelid. It exhibits the same phenomena of opening and shutting, and the same sensibility to light and other stimuli, as the true eye-lids. In addition to its two distinct sets of muscular fibres, corresponding to the levator and orbicularis palpebrarum, it possesses a delicate and beautifully variegated lining membrane, in which resides, probably, the seat of sensibility, and which, at all events in the latter point, resembles the lining membrane of the external lids. The general purposes of both are obviously the same.

It has already been stated that the nerves of the iris, or at least branches from the same parent nerves, go also to the palpebræ—viz. the third and fifth. In addition to these, branches are also sent from the portio dura. Now this complexity it is that occasions the difficulty which we find in explaining the various movements of the eye-lids. What are the uses of all these nerves? The use of the third, as connected with the palpebræ, is sufficiently clear: it gives the power of motion to the levator palpebræ; so that the function of this nerve is quite evident, and it is consequently easily disposed of. This cannot be said of the other two. That the fifth nerve, however, gives to the palpebræ, as well as to the eye and face generally, the property of sensibility, seems also indisputable. Are we sure that it does not control some of the motions of the palpebræ, and perhaps of the face? Branches of this nerve, we know, are sent to the corrugator supercilii; frontalis, and orbicularis palpebrarum; as well as to all the muscles of the face. What end can be answered by such a distribution, if not to supply these muscles with voluntary motion? Can we suppose those branches intended to bestow sensibility on these muscles? What good could be gained by endowing them with such a property? *They are the instruments of motion, and not of sensation. If the orbicularis need such sensibility, why does not the levator palpebræ require it? and yet nothing is said about* any branch of the fifth going to the latter muscle, or to any of the muscles of the eye. So that it seems perfectly reasonable to conclude that the branches of this nerve, which are connected with the muscles of the palpebræ and iris, are intended to supply these muscles with the power of motion, as similar branches do those of the jaw *. But we know, likewise, that branches of the portio dura go to the orbicularis; and then the question is, of what use is another set of nerves to the same muscle? Now whether this is merely to connect the eye-lids with the face, in expression or respiration, or in what other way, does not seem very clear. The portio dura is considered, by Sir Charles Bell, as the respiratory nerve of the face; and, if I understand his theory of the nervous system, he considers the respiratory portion of it perfectly distinct from those parts connected with sensibility and voluntary motion. Now then, if the branches of the portio dura be for the respiratory movements of the eye-lids and face, the inference is, that the branches of the fifth are for their voluntary motions; and yet this is far from being established at present: so that, notwithstanding the great discoveries in this branch of knowledge, effected by Sir C. Bell, something still remains to be done before we can consider our information on these points as perfectly satisfactory.

The motions of the orbicularis palpebrarum are various and distinct—such as the closing of the eye-lids in sleep and by the efforts of the will—an almost continual motion, termed winking — as well as an action in sneezing, laughing, &c.; and it seems not improbable that some of these motions are dependent upon the fifth, and that the others are derived from the portio dura. At all events, it appears reasonable to conclude that both nerves are essential to the perfect motions of the orbicularis—the one probably to connect it with the eye, the other with the face. The union of these *two nerves over every part of the face is most intimate: they appear to inosculate with each other, so as to form a kind of plexus; and one would be almost tempted to imagine that injury or disease affecting* one might produce a corresponding affection of the other, or rather, might be attended with impaired function of both, as we find to be the case with the union of the fifth and third, termed the ophthalmic ganglion. Experiments, conducted with this view, can alone, perhaps, settle this point. In one experiment, by Magendie, made upon a rabbit, of dividing the fifth pair of nerves, we are told, "the motions of the eyelids, called winking, had ceased." In similar experiments on other rabbits, "the eye-lids were either separated to a considerable distance from each other, and motionless, or were glued together by the puriform discharge which had dried on their edges," &c. If these experiments do not prove that the fifth has something to do with the motions of the eye-lids, it would be interesting to know what they do prove.

In an experiment by Sir C. Bell, it seems to be established, that certain muscles may be deprived of their connexion with the respiratory system, whilst they continue to possess voluntary motion. This eminent physiologist observes, "I divided its branches (viz. the spinal accessory) in the living animal, and by that means cut off certain muscles from partaking in the act of breathing, while they retained their office under the other nerves; that is, they remained under the direction of the will, when they had ceased to be influenced by the lungs*." The same is expressed elsewhere. "When it is cut across in experiments, the muscles of the shoulder, which were in action as respiratory muscles, cease their co-operation, but remain capable of voluntary actions †." With respect to the nerves of the face, he continues—and this brings us still nearer to the point—"Directed, in the next place, to the portio dura, I wished to answer the question, Why does the nerve which supplies the muscles of the face take an origin and a course different from the fifth nerve, destined to the same parts? By experiment, I proved that this was the respiratory nerve of the face: and by inference, I concluded that it had the origin *we see, and took its course with the respiratory nerves; because it was necessary to the association of the muscles of the nostrils, cheek, and lips, with the other muscles used in breathing, speaking, &c.* For this reason, it was associated with the root of the eighth pair instead of the fifth." Now, here Sir Charles Bell admits, that the portio dura is the nerve which connects the face with the remainder of the respiratory apparatus; but he has not furnished us with a key to the voluntary action possessed by these muscles, whilst it is quite clear that he considers the respiratory as distinct from the voluntary nerves.

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* It seems probable, that if the muscles of the jaw had also branches from the portio dura, to the latter alone would be attributed the voluntary motion they possess; but, as it is not so, physiologists are compelled to admit that the fifth is here a nerve of motion

* Exposition of the Nervous System, 1824. Octavo edit. p. 58.

† Ibid. p. 91.

In the same work, just quoted from, is a note, from a paper by that excellent anatomist, the late Mr. John Shaw. He observes, "If we cut a branch of the fifth which is distributed principally to the skin of the lips, we shall destroy the sensibility of the part, but impair the power of mastication only in a slight degree; but if we divide the nerve farther back, then we shall not only destroy the sensibility of the skin, as in the first experiment, but also cut off the power by which the jaws are moved. I cut a branch of the fifth upon the face; the sensibility of the corresponding side of the lip was destroyed, but little paralysis ensued *." Now, here is an admitted fact, that some effect was produced upon the muscles of the lip: true, it says "but little paralysis ensued," but still paralysis there evidently was to a certain extent.

It would seem as if Sir Charles Bell had, at one time, been nearly led to look at the double nervous supply to the face in the way I have now done. He says, "If we were barely to consider this distribution of the portio dura of the seventh, unbiassed by theory or opinion, we should be forced to conclude, that it is not alone sufficient to supply any one part with nervous power, for every one of its branches is joined by divisions of the fifth. The question then naturally arises, whether these nerves perform the same function? whether they furnish a double supply of the same property or endowment? or whether they do not perform different offices *?" Sir Charles then relates experiments which he undertook with a view of illustrating the functions of the two sets of nerves. "*An ass being thrown, and its nostrils confined for a few seconds, so as to make it pant and forcibly dilate the nostrils at each inspiration,* the portio dura was divided on one side of the head; the motion of the nostril of the same side instantly ceased, while the other nostril continued to expand and contract in unison with the motions of the chest." . . . . . . "The animal being untied, and corn and hay given to him, he ate without the slightest impediment." This experiment clearly proves that the portio dura is the respiratory nerve of the face; and it as clearly proves that the muscles of the face can act independently of the influence of that nerve. The animal "ate without the slightest impediment." Are not all the muscles of the face in action during the process of eating? There is not merely the opening and shutting of the jaws, but the separation of the lips, and the general consentaneous action of the muscles of the cheeks. This experiment, in my opinion, proves that the action of the muscles of the face is independent of the portio dura, except so far as its connexion with respiration is concerned. If this nerve had presided over the voluntary motions of the lips, *they would have been found twisted to the opposite side*, as occurred in the next experiment. "The superior maxillary branch of the fifth nerve was divided, but no change took place in the motion of the nostril; the cartilages continued to expand regularly in time with the other parts which combine in the act of respiration; but the side of the lip was observed to hang low, and *it was dragged to the other side.* The same branch of the fifth was divided on the opposite side, and the animal let loose. He could no longer pick up his corn; *the power of elevating and projecting the lip, as in gathering food, appeared lost.* To open the lips, the animal pressed the mouth against the ground, and at length licked the oats from the ground with his tongue. The *loss of motion* of the lips in eating was so obvious, that it was thought a useless cruelty to cut the other branch of the fifth." This experiment proves that the fifth is totally unconnected with the respiratory system. It proves, further, that the fifth is a nerve of motion, as well as of sensation. The lip of the side experimented upon "*was dragged to the other side.*" Will it be said, that this arose from any other cause than the loss of power in the muscles of the lip of the injured side to retain it in its natural position? Could the inability to pick up his corn, and the loss of "the power of elevating and projecting the lip," when the nerve of the opposite side was also cut, arise from any other cause than loss of power over the motions of the lips? As Sir Charles Bell himself says, "the loss of motion of the lips in eating was so obvious, that it was thought a useless cruelty to cut the other branches of the fifth." But, strange to say, Sir Charles, as appears by a note, subsequently altered his views of this experiment, and imagined that nothing more than loss of sensation was here proved. It is painful to differ from so distinguished a physiologist; but do we not daily witness complete loss of sensibility with a perfect state of the motions of various parts? Here, most probably, sensibility and motion of the lips were both destroyed; but certainly I cannot persuade myself but that the motions of the lips were paralysed, whether the sensibility was so or not. The very fact that the lip was dragged to the opposite side, in the first part of the experiment, proves that the muscles of that side could no longer act. What had that phenomenon to do with loss of sensibility? And, if the animal, in the second part of the experiment, could not feel with the lips, still, if it had retained the power of motion, it would nevertheless have been able to elevate and project them.

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* Page 84.

* Page 104.

Other facts are adduced by Sir Charles, which prove not only that the portio dura is the respiratory nerve of the face, but likewise, that it is nothing more. In a monkey, after cutting this nerve, "the timid motions of his eye-lids and eye-brows were lost, and he could not wink on that side; and his lips were drawn to the other side, like a paralytic drunkard, *whenever he shewed his teeth in rage.*" Now what are we to infer from this experiment, but that the animal retained the power of the muscles, except when in a state of excitement, when the whole respiratory system was agitated? Here there is no distortion of the mouth, except when he is in a state of rage. If this nerve had presided over the muscles of the lips at all times, he must have been, at all times, in the condition of the ass in the previous experiment, who had his lips permanently dragged to the opposite side, after division of the fifth. The timid motions of the eye-lids and eye-brows, and the motion of winking, were all lost on that side; but nothing is said about a loss of the ordinary motions of those parts contracting the eye-brows and closing the lids.

A case is next related of "suppuration of the face anterior to the ear, through which the nerve (portio dura) passed in its course to the face. It was observed that, *in smiling and laughing*, his mouth was drawn in a very remarkable manner to the opposite side. The attempt to whistle was attended with a ludicrous distortion of the lips; when he took snuff and sneezed, the side where the suppuration had affected the nerve remained placid, while the opposite side exhibited the usual distortion." Here also it is quite plain there was no permanent paralysis of the muscles—no loss of their voluntary actions—nothing remarkable except when laughing, sneezing, or in some other motion connected with respiration.

Another case worthy of notice is that of "Thomas Barrett, a patient in the hospital, who had his mouth drawn to the left ear; the eye-lids of the right side remain open; but the temporal and masseter muscles retain their power." This likewise is considered by Sir Charles as an instance of disease of the portio dura; but there is this remarkable difference, that the paralysis is constant, whilst in the others it was only observed during some act of respiration, such as whistling, laughing, &c.; and, if we may be permitted to draw an inference from the experiment of dividing the fifth on the ass, this case may be fairly set down as a disease, not of the portio dura, but of the fifth. We are borne out in such inference from what Sir Charles elsewhere says, "In the individual whose face was paralysed on one side during the excited state of the respiratory organs, there could be observed no debility or paralysis in *the same muscles when he took a morsel into his mouth and began to chew;*" so that we are evidently to look to the fifth nerve for the action of the muscles in eating (I presume a voluntary action); and these muscles are not merely those of the jaws, but likewise those of the cheeks and lips.

In attempting to irritate the portio dura, the slightest touch " convulsed the muscles of the face;" whilst in irritating the branches of the fifth, " it was *more difficult* to produce any degree of action in the muscles." This only proves that the respiratory nerves are more easily excited than the common nerves. Had no action of the muscles followed the irritation of the branches of the fifth, then it would have been a legitimate conclusion that they ministered to none; but as an action did follow such irritation, though more difficult to produce, it seems perfectly correct to conclude, that such motion is also derived from this nerve. Indeed, if those motions of the face and eye-lids, which are unconnected with respiration, are not affected through the fifth nerve, then is Sir Charles's theory perfectly upset, since it would prove that the portio dura is a nerve of voluntary, as well as respiratory, motion; which is contrary to what he has advanced with regard to the respiratory nerves generally.

Elsewhere Sir Charles observes, " I have found in an individual, that, when the cheeks and lips were twisted by paralysis, he possessed the power of holding with his lips in a manner that indicated a power independent of the seventh." Mr. Shaw also says of a case, " If told to laugh with the right side, she raises the angle of the mouth, but by an action which is evidently regulated by the fifth."

Almost every page of this part of Sir Charles's work is filled with proofs of this double set of motions of the muscles of the face. He says, " All such affections of the respiratory nerve will now be more easily detected; *the patient has a command over the muscles of the face; he can close the lips, and the features are duly balanced;* but the slightest smile is immediately attended with distortion; and in laughing and crying the paralysis becomes quite distinct." If this does not imply that the common motions would remain unimpaired after injury to the portio dura, I don't know what else it can mean; and yet Sir Charles imagines that, if a surgeon were to cut the branch of the portio dura which goes to the eye-lids, they " thenceforward would stand apart, the eye would be permanently uncovered, and the cornea become opaque, and the vision of the eye be lost." This I believe to be a *non sequitur*. It is contradicted by Sir Charles's previous experiments. The phenomena here predicted would, I think, have followed the cutting of the branch of the fifth which goes to the eye-lids, as occurred in the experiments of Magendie. Several other cases might be extracted from Sir Charles's work, but that I think a sufficient number have already been noticed.

It is the fashion at present to attribute every paralytic condition of the muscles of the face to disease of the portio dura. This is not surprising, when the discoverer of the grand distinction between the respiratory and the other nerves has failed to apply to the muscles of the face the important principle which he has so satisfactorily established generally*.

From observation and consideration of the cases and experiments alluded to, it may be safely inferred that all cases of permanent distortion of the lips must arise from paralysis of the fifth pair of nerves; whilst that twisting which is observed only during laughter, &c. is to be attributed to paralysis of the portio dura. In cases of permanent twist of the mouth, it is very common to find that the sensibility is likewise impaired; in such a case there can be no question but that the disease is to be referred to the fifth.

My object, originally, was to attempt to prove that some of the branches of the fifth pair, which go to the iris, contribute to its motions. I was thus led to inquire into the properties of those branches which are distributed to the muscles of the eye-lids and face: if, in these researches, I shall have assisted in elucidating those points, it cannot be otherwise than a source of considerable satisfaction to myself, and of some slight interest to the profession

I shall close this paper, already perhaps too long, by relating two cases which I conceive to bear on this question, and which I consider to be instances of diseased action of the fifth pair.

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* In a lecture published in the Medical Gazette, Feb. 8, I observe that Sir Charles still speaks of the muscles of the jaw merely as deriving motion from the fifth.

CASE I.—*Sympathetic action of the Eye-lids and Iris.*

Jane Ford, æt. 8, admitted a patient of the Manchester Eye Institution, November 26, 1833, with the following symptoms:—The eye-lids of the left side are spasmodically closed, with a constant twitching motion of the fibres of the orbicularis; and a corresponding action of the orbicularis oris, so that the mouth was drawn *to the affected side;* without any loss of sensibility to touch, or diminution of taste or smell. On separating the eye-lids, the sphincter fibres of the iris were found to be in a similar excited state, the pupil continually contracting and dilating with considerable rapidity (hippus pupillæ), independently of variations of light. She says that she cannot perceive the slightest object with this eye, not even the light. She was ordered leeches, calomel, &c.; and on the 3d of January presented herself quite well.

This affection is considered by Beer as symptomatic amaurosis, arising from hysteria, convulsions, &c. It is difficult to decide whether this was really amaurosis, or whether the inability to see might not be occasioned by the irregular state of the pupil. The age of the girl was unfavourable to obtaining any very correct information; but the symptoms narrated do not admit of misinterpretation, and they could not be imitated. This case I venture to bring forward as an illustration of sympathetic action between the eye lids and iris. I cannot but consider it as strongly corroborative of the opinions I have advanced on this point, as well as its being an affection of the fifth pair of nerves, although a very different affection from paralysis. At first I was inclined to refer the closure of the eye-lids to paralysis of the levator palpebræ; but from the convulsive action of the orbicularis, joined with the other symptoms, I was induced to alter that view.

CASE II.—*Partial Paralysis of several parts of the Face, from affection of the fifth pair.*

Mr. C., clerk in an assurance office, called on me, November 20, 1833, complaining of disagreeable sensations about the face and neck, with loss of power over some of the muscles of the face, which had commenced on the preceding day, and for which he could not at all account. The affection was confined to the right side. The mouth was drawn to the opposite side permanently, and he complained of diminished sensibility of the side of the face, particularly about the lips. The tongue slightly distorted; the right side of it almost insensible to touch, and the taste very much impaired, so that he could not distinguish bread from beef. When any portion of food gets between the teeth and the cheek of the affected side, he is unable to dislodge it, except with his finger. The winking motions of the eye-lids were imperfectly executed, and he could not close them completely. Vision was unimpaired. One remarkable symptom was an insensibility to the stimulus of light: the eye being placed close to a strong gas light, no irritation was produced, and no attempt at closing the lids was made; but the conjunctiva was sensible to touch. The iris was in this case perfectly natural. He complained of tenderness over various parts of the neck and face, and particularly about the superior part of the spinal column; but had not suffered any pain or giddiness of the head. The application of leeches to the neck, followed by a blister, and the internal use of mercurials, &c. completed his recovery in about a month or six weeks.

February 21, 1834.

OBSERVATIONS
ON THE
VENEREAL DISEASE;

Being an Extract from the Annual Report of Diseases treated in the Hospital of the 72d Regiment, at the Cape of Good Hope, in 1832.

BY THOMAS CLARKE, ESQ.

[Communicated by SIR JAMES M'GRIGOR, BART., with the Author's permission.]

IT is impossible to come to the consideration of this disease, without being impressed with a sense of its great importance in a military point of view.

When we take into consideration the universal prevalence of venereal disease, and look at the number of soldiers who are admitted into hospital on that account, by which the present and ultimate efficiency of the regiment is materially affected, the necessity is forced upon us of using our utmost endeavours to check its prevalence, and also to bestow the most attentive consideration in our power upon the mode of treatment.

We have to consider not only what particular mode of treatment is best adapted to the cure of the primary symptoms of the disease, but also by what means we shall be most successful, in preventing the occurrence of those constitutional affections liable to ensue, and by which, in many instances, the constitution of the soldier is prematurely worn out, and the duration of military life shortened.

With regard to the prevalence of the disease, in justice to the municipal authorities it must be said, that no exertion is wanting on their parts to check its propagation, and with considerable success: and with reference to the most beneficial mode of cure, the question resolves itself, in a great measure, into what has been called the mercurial and non-mercurial treatment.

During the four years the 72d regiment has occupied this station, we have had ample opportunity of observing the disease, in almost every form or variety in which it is known to occur; and although the treatment has not been conducted with a view to the production of arguments on either side of the question, yet, perhaps, some useful inferences may be drawn from a concise statement of facts.

For the sake of perspicuity, I think it would be desirable to discard the term syphilis altogether for the present; for, although it has found its way into the return, I would not take upon myself to say, why it should be applied to one sore more than another.

Under the heads, then, of Ulcus Penis, and Syphilis Primitiva, in the Return, are comprehended all primary venereal sores of every description whatever: these may be arranged into certain species, each possessing a character of its own at some time, but not always retaining the same character throughout.

1st. The superficial ulcer either on the external or internal surface of the prepuce, and which is by far the most tractable of any. This sore is sometimes attended with induration of the surrounding substance, and sometimes not. When occurring on the external surface it is rarely attended with induration, but when on the internal surface, it is very seldom found without it. The ulcer is sometimes found single; occasionally several make their appearance, forming a circular fringe on the edge of the prepuce.

2dly. The ulcer on the glans, presenting a variety of appearances, and always attended with excavation, and more or less induration of the edges, it is difficult to heal under all circumstances, and is occasionally found to break out again, even after a lapse of several weeks. This sore generally leaves a well-marked cicatrix, and to it have been traced a very large proportion of the cases of constitutional symptoms which have occurred.

3rdly. There is the phagadenic sloughing ulcer, of which I have observed one case only which can be strictly so designated.

It does not appear to me that any good can result from an attempt to fix upon any one of these primary ulcers in preference to another, the arbitrary term of syphilis. Neither should I be able to say, either from the appearance of the sore, its duration, or its consequences, or any other circumstance attending it, what ought to be called syphilis, and what not. I therefore look upon them all as local ulcers, arising from the application of a certain virus, and all liable to be followed by a certain train of constitutional symptoms.

What this virus is, whether it is one, or many poisons, may be a question; whether it is but one and the same poison, variously modified as to its effects, by the constitution and habits of life of the patient; or a variety of poisons, capable of producing distinct diseases, is more than I can say. This much is certain, that the constitutional train of symptoms, arising from primary sores of precisely the same character, is powerfully influenced and modified by the habits of life and constitution of the persons. Is it illogical then to infer that the primary affection may also be subject to this influence?

The treatment of the primary ulcers has been conducted on the principles already alluded to; that is, a certain number of every variety have been treated with, and without, mercury; and these have not been selected for one mode of treatment in preference to another, from any peculiar character or appearance of the sore, or from any idea that one was syphilitic, and another not; but the different modes of treatment have been applied to sores of a precisely similar character, in order that the comparative merits of the mercurial and non-mercurial treatment might be fairly estimated; not only with reference to the object of immediate cure, but also to that of ultimate consequences.

And I may be here permitted to remark, that the result of four years' uninterrupted observation and experience, added to that of former years, is such as to satisfy my mind, that every variety of the primary disease which has fallen under my observation, might have been cured without the use of mercury: and further, it is such as to incline me to reject the employment of that remedy almost altogether, as being, perhaps, unnecessary in any case, and in many decidedly injurious. I do not mean to assert that cases may not have occurred, which from some cause, perhaps unknown, may have baffled the best-directed efforts for their cure: I speak only of my own limited experience.

Of the inefficacy of every mode of treatment, of the constitutional symptoms of the disease in certain habits of body, I have myself more than sufficient experience.

I am ready to admit, and to give those of a contrary opinion the full benefit of the fact, that there are some, and perhaps many cases, in which mercury will be found to expedite the cure; but this is by no means universally the case; neither do I think any one could take upon himself to say in what particular instance it will hold good.

Seeing, then, the uncertainty of the benefit, it behoves us to bear in mind that we are handling a dangerous weapon: but conceding this point as fully as it can be demanded, when we look at the average number of days requisite for the cure, under both modes of treatment, the difference appears to me very immaterial, and by no means to be put in competition with the single fact of the advantage to the soldier, as well as the service, in being discharged from hospital the moment the sore is healed; fit for duty, and his health unimpaired. If then, in point of time required for the cure, there is no great advantage on either side, is there advantage in any other respect? This gives rise to the question—the all-important question indeed—whether constitutional symptoms more frequently ensue upon one mode of treatment than upon another.

I have not instituted any comparative experiments, with a view to determine this question, nor do I think that the results of any such experiments could at all be relied upon; but my own experience authorizes me to say, that constitutional symptoms not only occur less frequently where mercury has not been used (although the difference in this respect may not be worthy of much consideration), but also, when they do occur, they are always of a milder character, of shorter duration, more easily and more effectually removed; and, what is a matter of no small importance, with much less injury to the constitution, than when that medicine has been employed.

It appears that during the year 1829, being the first year on this station, there were admitted into hospital 96 cases of primary ulcers, with and without bubo, and of bubo that had been preceded by ulcers, but which had been healed previous to admission. Of these 96 cases, 39 were treated with, and 57 without mercury. During the same period four cases of constitutional symptoms occurred, in all of which the primary disease had been treated with mercury.

In the second year 104 cases of the same description were admitted; and of these, 40 were treated with mercury, and 64 without it; and constitutional symptoms appeared in six persons, in four of whom the primary disease had been treated with mercury, and in two without it; and in two of those treated with mercury, constitutional symptoms appeared a second time, making together the eight cases entered on the return.

In the third year there were treated 96 cases of the primary disease, 25 with, and 71 without mercury; and amongst the former, three cases of secondary symptoms appeared; and amongst the latter, six. In one of the three cases the symptoms occurred for the third time, and in one of the six cases that had been treated without mercury, they appeared a second time; and in one case (making in all 13 entered on the return) was a relapse from the preceding year, in which the primary disease had been treated with mercury.

During the last year 42 cases have been admitted, 12 of which have been treated with, and 30 without mercury; of the former, two, and of the latter, ten, were followed by secondary symptoms. In one of the two cases in which mercury had been used the constitutional symptoms recurred a third time; and in one of the ten in which it had not been used, they appeared a second time; besides which there are five cases (making in all twenty entered on the return of this year) relapses from the preceding year, in one of which mercury had been used for the cure of the primary disease, and in the others it had not.

With this explanation the following table will be understood:-

Years.	Primary Venereal Disease treated		Total.	Secondary Symptoms after Mercurial Treatment.	Secondary Symptoms after Non-Mercurial Treatment.	Relapses after Mercurial Treatment.	Relapses after Non-Mercurial Treatment.	Total.
	With Mercury.	Without Mercury.						
1829	39	57	96	4	0	1	0	5
1830	40	64	104	4	2	2	0	8
1831	25	71	96	3	6	3	1	13
1832	12	30	42	2	10	6	2	20
Total	116	222	338	13	18	12	3	46

It appears from this table, that while the number of cases of primary disease have been progressively decreasing during the last three years, those of the constitutional disease have been progressively increasing. And further, it may be remarked that, on comparing one year with another, a considerable difference appears in the duration of the primary disease, the average number of days under treatment being, in 1829, 23 days; in 1830, 28 days; in 1831, 24 days; and in 1832, 32 days. This being a general average, without reference to the nature of the sores, or the particular mode of treatment, I am at a loss to account for the circumstance upon any other principle than that of a change in the habits and constitutions of the men. There can be no doubt of the fact, that, by the intemperate habits to which soldiers are far too generally addicted, in this climate, their constitutions are impaired to a lamentable extent in a remarkably short space of time; and these causes, intemperance and climate together, operate not only in rendering the local disease more difficult of cure, but also in predisposing the constitution for the accession of constitutional symptoms, which symptoms in every subsequent year appear in a more aggravated form, are more intractable under treatment, and also more liable to recur; besides which, there are peculiarities of constitution, more particularly where the strumous diathesis exists, in which the symptoms are doubly aggravated. We have every day experience of the mildness of character of the symptoms, and the ease with which they are removed, in men of temperate habits; and also the contrary. I am further satisfied also, that in very many instances, but for the circumstance of a deep debauch, or perhaps a march under a hot sun, the constitutional disease might never have been produced.

A sketch of the cases of constitutional symptoms which have been treated during the last year, will illustrate these remarks.

It may be necessary to premise, that in every case of primary disease the patient is strictly confined to bed until the sore is healed, with constant application of astringent washes, such as the solutions of alum, zinc, liquor plumbi, black or yellow washes, and fomentations and poultices where their use is indicated. The diet is always the least exciting hospital diet, until the sore has made some progress in healing; and a purgative draught is given every second or third day, in the early stage, according to the state of the constitution. When mercury is used, the treatment is not varied, except by its addition.

[To be continued.]

PATHOLOGICAL OBSERVATIONS ON THE SKIN.

To the Editor of the Medical Gazette.

Sir,

It is a matter of curious speculation to note the conflicting opinions of medical authors regarding the seat of cutaneous affections. Even the *existence* of textures, which by some is considered essential to specific disease, is denied by others, and is imputed either to the suggestions of a fanciful theory, or the preternatural appearances assumed by the different tissues in a state of dissolution.

Since the days of Malpighi, the skin has generally been described as consisting of *three* laminæ. Sir Charles Bell, in our day, says *four;* and Mr. Lawrence, Dr. Gordon, and Mr. Plumbe, deny the existence of more than *two*—the *cutis vera* and *tela cellulosa;* the inorganic superficial cuticle being a mere secretion for the protection of the subjacent structures, and in no way concerned in the production of disease.

Seeing, then, these discrepancies in the opinions of medical authors (some of them of no mean reputation), is it to be wondered at, if, even at this period of pathological knowledge, the precise nature of cutaneous affections is not satisfactorily ascertained? Thus we find that by some it is fixed in the true skin, or its superjacent vascular membrane; by others, in the sentient extremities of nerves; and others, again, appoint the precise locality of these affections in the tela cellulosa, or the discarded rete mucosum. Each of these speculative pathologists may in his turn be correct; and, happily for the therapeutical indication, it matters not very materially in which particular texture the affection may reside. The most important question remains. The manifest complexity of the structure of the skin, the diversity of its operation, and its intimate dependence upon the state of the system at large, render it liable to extensive functional derangement. The material change of structure consequent upon various disorders is visible to our senses, but there appears to exist a *disposition* to disease, which precedes this tangible manifestation. How, then, is this prior adaptation acted upon?

Reverting to the exploded humoral pathology, and discarding its manifold absurdities, it appears a rational hypothesis which contemplates the blood as nearly concerned in the production of disease. The laws of the vital properties are involved in impenetrable mystery; but it may be stated in the abstract, that they are engaged in the work of morbid assimilation, by the direct influence of an universally depraved secretion.

It is notorious, that constitutional derangement precedes all extensive cutaneous eruptions. In some cases, nature appears to concentrate her energies, in order to expel a noxious principle; and, concluding from inductive analogy, might we not be led to expect the same phenomena—milder, indeed, in degree—preceding the slighter shades of cutaneous eruptions? The fact is so. The leading features, then, may be thus briefly stated. The stomach, the great centre of agency, is disturbed, and its secretions depraved; the influence communicates, immediately through the circulation, or by direct contiguity, with the liver, and the function of the latter organ is also deranged. The whole course of the alimentary canal suffers, and the blood destined to support the animal and vital functions is more or less mingled with the depraved secretion, loses its integrity, and is converted into an unhealthy fluid. The brain, sympathising, secondarily, by relation with the digestive organs, or by its inseparable connexion with the blood itself, becomes irritated or weakened, and in its turn communicates depraved energy to specific local seats. Hence, acting in concert with an irritating fluid, parts preternaturally weak or irritable assume diseased action, which may be afterwards maintained by a peculiar modification of the vitality of the affected surfaces. From this concatenation of morbid actions, arise, in particular portions of the body, peculiar diseases, manifesting themselves either simply, by a mere change in the elaboration of their secretions, or in more complex operations leading eventually to extensive lesions of the material structure itself.

I have the honour to be, sir,
Your obedient servant,
R. H. Allnatt, M.D.

Wallingford, Feb. 25, 1834.

TREATMENT OF LEPROUS ERUPTIONS.

To the Editor of the Medical Gazette.

Sir,

Those forms of chronic cutaneous eruptions which are usually classed under the designations lepra and psoriasis, are acknowledged, I believe, on all hands, to be difficult of cure; and, so far as I know, there is no remedy hitherto recommended which can be said to be of certain efficacy, or to act successfully in any degree approaching to uniformity. The very various and opposite treatment which we see employed, and the numerous medicaments which have been advised, afford ample proof of the truth of this assertion. The subjoined case illustrates a mode of treatment which I have not seen practised except in this hospital, nor do I recollect ever to have noticed any allusion being made to it in any work on the subject of cutaneous disease. Several instances have occurred wherein the remedy has been attended with distinguished success, and in the present case, the disease having been of long continuance, and many other applications having been tried in vain, its advantageous influence is the more conspicuously marked.

Henry Stevens, aged 22, was admitted into the Derby Infirmary on December 23, 1833, under the care of Dr. Bent. Fourteen months ago he first became affected with leprous eruption, which now extends over the greater part of his body and limbs. His legs and arms are, however, most covered with patches; which are red, distinct, and chiefly circular in form, none exceeding the dimensions of half a crown, and the greater part being very much less. They are a little raised above the level of the surrounding skin, and covered with dry scales; health in other respects good. About three or four months previous to his present admission, he was discharged from the hospital, after having been nine or ten weeks under treatment without obtaining any manifest advantage, although various remedies, very judiciously applied by another practitioner, had been had recourse to: of these, the chief were the steam-bath, calomel and antimony, tincture of iodine, decoction of sarsaparilla, with oxymuriate of mercury; bleeding, the sulphur vapour-bath, and the warm-bath.

December 23d.—The vapour-bath was directed, chiefly with a view to soften and remove the scales, and the following ointment was applied to the left arm night and morning.

℞ Hydriodat. Potassæ, ʒss.; Iodinæ, gr. iv.; Cerat. Cetacei, ℥ij. ft. ung.

26.—The empl. hydrargyri, spread on calico, was now applied in strips to the right arm, from the hand to the shoulder, and to the whole of both legs and thighs; the iodine ointment being continued of increased strength (Hydr. Potass. ʒj., Iodinæ, gr. vj.), with a view of observing the comparative efficiency of the two applications.

31st.—The left arm, to which the ointment was used, had undergone no change; but when the strips of plaister were removed from the other parts, improvement was very observable.

Treatment continued.

January 8th.—No change in the left arm; other parts continue to improve. Omit the ointment, and let the left arm be now covered with plaisters, as well as the other limbs.

Hab. Liquor. Potassæ, ʒj. ter die ex aquâ.

23d.—The same treatment was persisted in till to-day, when his gums were become very sore and his mouth inflamed. The patches of eruption had a greatly improved appearance; no elevation or scaliness could be seen, and the surface had a smooth healthy character. Owing to the state of his mouth, the empl. hydr. was now omitted, and the following ointment substituted in lieu of it.

℞ Ung. Picis; Ung Sulphur.; Cerati Plumbi superacet. aa. ℥j. ft. ung. quo illinantur partes affectæ omni nocte maneque.

His bowels being griped, tinct. camph. com. was added to the liquor potassæ, and a gargle containing chlor. sodæ was used for his mouth

27th.—Mouth continues sore; eruption going on well.

February 10th.—Eruption has nearly disappeared. Behind the neck and upon the shoulders were many small tubercles, of the kind occurring in acne; to which he had been liable a long time. To relieve this, the following lotion was applied twice daily.

℞ Hydr. Oxymur. gr. viij.; Sp. Vin. rect. ℥iv.; Aquæ Fontis, ℥xij. ft. lotio.

17th.—The leprous eruption has now disappeared. He was directed to use the vapour-bath, and all other remedies were omitted, except the lotion to the neck and shoulders.

20th.—Is free from complaint.

24th.—Discharged cured.

Although, in the foregoing case, the treatment was not limited solely to the employment of the mercurial plaisters, there is no doubt the other remedies acted a very subordinate part, and the cure must be attributed mainly to them. His diet during the time did not deviate from the ordinary allowance of the house. It may be well to state, that in the use of this application some management is requisite. In Stevens's case, though continued for several days together without removal, the plaisters never excited too much, or irritated either the healthy or diseased portions of the skin; but in some instances it is otherwise. After three or four days, the parts begin to tingle, become inflamed, and a small papular eruption shews itself. When this happens, the mercurial strips should be removed, and their place supplied for a day or two with simple diachylon; to be succeeded again by the empl. hydr. and so on, alternating them, as circumstances may indicate. Some parts about the nates and back were not covered with the plaisters, and underwent no change in appearance till after the patches on the limbs had undergone considerable amendment. Afterwards, and particularly when the mouth became mercurialized, they gradually vanished.

Should you consider the above concise and hasty observations upon what I consider an interesting and instructive case, worthy of a place in your excellent journal, pray have the kindness to insert them.—I remain, sir,

Your obedient servant,
Richard Dix,
House Surgeon.

Derby Infirmary, Feb. 26, 1834.

ON LUMBRICI:

The Causes of their Prevalence, and Treatment, as practised in the Mauritius.

By Robert Dyer, M.D.
Assistant-Surgeon to the Forces.

This complaint is nearly universal in the Mauritius: the most healthy, as well as the weak and sickly, seem equally obnoxious to its production. Nor are the patients often aware of the presence of those animals until they see them discharged. No age or sex is exempt.

In the black population, and especially the slaves, it is nearly their only complaint; and in such numbers are the lumbrici produced, that I have frequently been disgusted by seeing them crawling from the anus and mouth at the same time. One black literally (after having taken the usual medicine exhibited on those occasions), brought me his hat full, which he assured me he had passed very shortly before.

The symptom most generally complained of is griping pain in the belly, which is always enormously large and hard, with constant desire to eat. Frequently there is vomiting, and irregular action in the bowels, headache, convulsions, spasms, and various hysteric symptoms. To assign a cause for so great a tendency to worms, I am at a loss. Nor does their origin appear more clearly accounted for by writers on this subject. The general opinion is, that they are derived from external sources, such as water, rice, &c.; but it appears to me probable that their existence depends very much upon the condition of the individual, whereby the system is rendered more susceptible of their production: and this susceptibility and condition of the individual will be greatly influenced by the nature of the food. I have somewhere seen it stated, that individuals fed without salt, or where little of it enters into the aliment, are more liable to this complaint than those who make a liberal use of it; and that a recurrence to its use freely will destroy the tendency, and act as a cure. The following facts certainly tend to corroborate those observations; and as they are not single and isolated, but gathered from numerous cases, and by many intelligent individuals, are deserving of credit.

I have before stated, that the coloured

population, and especially the slaves, are incessantly and universally subject to worms. This class of persons seldom or never eat salt: they are fond of it, as they are of any thing of which they are deprived, or which is not within their reach, and will endeavour to procure it if they can; but, as it never forms part of the ration of the slave, from its being an article of import, and consequently expensive, and the slaves themselves having little or no means of obtaining it, they seldom see it. Among the convicts (who are natives of India, and condemned to work on the roads for life), and the government slaves, both of whose rations very much resemble that of the European soldier, such a disease is of comparatively rare occurrence; and I perfectly well remember contrasting the rarity of this complaint in a black corps, of which I had medical charge, with the great frequency of it in the slaves of the planter. Farther: many of the planters who had been induced to allow salt to form part of their slaves' rations, have informed me, that after continuing it for some time, they had discontinued it, and that very soon the old complaint became prevalent, and obliged them either to revert to its use or supply its place by some other expedient. They all admit its advantage, but all complain of its expense. This may appear strange, that so trifling an addition to the ration, and one the benefit of which they admit, should be objected to, on the score of increasing so materially the annual expense of maintenance; but I think this will readily be conceded, when it is recollected that on many of the plantations to which I at this moment allude the number of slaves exceeded 500. To obviate this difficulty—keeping in view economy, and still maintaining the health of the slave—many have adopted the plan of administering *salt* as a medicine; this they give in the quantity of a table spoonful in half a pint of water to every slave, regularly every Saturday after work. And I am assured by those who have adopted this plan—and they are persons on whom perfect reliance may be placed—that the object has been most perfectly fulfilled; and they moreover state, that they believe their slaves to be possessed of more vigour and bodily strength, and altogether more healthy, since they have made use of this simple expedient.

By this digression, I have been by anticipation led to the mode of cure, as salt, in liberal doses, is not only a preventive, but nearly as active a means of cure as any of the remedies in common use. I have frequently made trial of salt, and have never had occasion to rob it of its merit, by being disappointed in the result. I have seldom, however, used it where the patient had much bodily suffering: only in cases where the general health appeared good, but with symptoms sufficiently indicative of the presence of worms.

The mode of administering it was in solution—a table spoonful in half a pint of water the first day three times, and following this up the next morning by an ounce of castor oil; after this, a table spoonful every night, so long as worms were produced.

There is yet another remedy, I may safely say specific as a vermifuge, which is very generally used in the Mauritius, and with never-failing success in its effects;—I allude to the "*Lait de papaya*," which is an exudation of a white glutinous fluid, from the green fruit of the tree "*Carica papaya*," procured by scratching or scoring the fruit with a knife. In botanical works its vermifuge qualities are mentioned, though cursorily; but I do not observe it noticed in any of the medical works that treat on worms: yet, from what I have seen of it, it appears to me that it ought to stand higher in the class of vermifuges than any medicine known, not only as being certain in its effects, but, from all the inquiries I have made, I have never been able to learn that an over-dose has produced any unpleasant consequences. As yet, however, there is a difficulty which must be removed before its use can be general, but which the chemist, were his attention directed to it, would soon obviate;—I allude to the difficulty in procuring it, excepting in countries where the tree grows, as well as the preserving it for any length of time, undiminished in its properties.

The tree is of rapid growth and extremely prolific, and bears fruit in eighteen months. It is tolerably well described in Curtis's Botanical Magazine (second series), and I need not repeat what is there stated. The quantity of juice which may be obtained from any single fruit is very abundant; it looks like thick cream. If mixed slowly and gradually with hot water, it forms an equal milky-looking fluid: if the water is poured suddenly on it, without stirring, the juice coagulates, and floats on the top; in both cases a considerable portion separates from the water, after remaining at rest for a quarter of an hour. The pure juice, or the cut fruit, rubbed on the skin, or chewed, excoriates and blisters the parts; and it feels hot to the taste, like chillies.

The dose varies with the age of the patient. To a child under ten years, a tea-spoonful will be sufficient; above that age, from a dessert to a table-spoonful is the dose. The juice (in whatever quantity is deemed requisite) is first mixed up with some honey, and generally a table-spoonful of boiling water slowly added. The part that coagulates and floats, is by some removed; but I have given it as often with as without this scum, and never observed any marked difference in the effects. A dose of castor oil is always given two hours after. The seeds of the fruit chewed have the same effect. The other properties of this singular tree I will not enlarge upon, farther than by confirming the reports given in botanical works, which I have often seen practised—viz. the power it has in rendering meat tender, and of inducing rapidly its passing into a state of putridity. A fowl hung to the tree under its branches, will, in a quarter of an hour, become extremely tender. If left during the night, the skin will leave the flesh, and the flesh the bones, with the least handling; a few hours more, every fibre will separate from another. With every description of meat these effects are striking, but with none more than with that of pigs.

The ripe fruit is not unpleasant, and is often served up at dessert. It makes an excellent preserve, and keeps well.

There is a species of the flowering ash (Melia Azedarock) which is indigenous both at the Cape and Mauritius. The bark of the roots, infused in boiling water, and drunk fasting, is very frequently given by the planters to their slaves, for the cure of worms; and I am assured its effects are equally certain. It is purgative at the same time, and requires no medicine, like the others, to be taken after its use. As a medicine for cattle and dogs, it is particularly safe and efficacious. I have never made use of it.

Having only been led to speak of the cure of worms, in my endeavours to investigate the causes of their prevalence, in compliance with the wishes of the Director General, contained in a late circular, it will not be deemed necessary that I should extend these remarks to the various *remedies* usually employed in such cases.

MEDULLARY SARCOMA IN THE BRONCHIAL GLANDS.

To the Editor of the Medical Gazette.

Sir,

Happening recently to peruse the elaborate article on *Cancer*, contained in the Dictionnaire de Medecine et de Chirurgie, now in progress of publication, I was induced, by the learned writer's statements (p. 491), as well as by my own impressions of the infrequency of certain forms or seats of the disease, to conceive that I should not trespass on your valuable pages with matter devoid of interest, by requesting your insertion of the following record of the postmortem appearances of two cases of "*medullary sarcoma in the bronchial glands*," occurring lately, under my care, at the Birmingham General Hospital. The first is taken from my case-book at that institution; the second is copied from the private minutes of my late colleague, Dr. Darwall, who assisted in the examination of the body. The much-lamented sequel of his zeal on this occasion need not be recalled to the too recent recollection of his friends and professional associates.

I remain, sir,
Your very obedient servant,
John H. Booth, M.D.

Birmingham, Feb. 25, 1834.

Case I.—*Postmortem appearances in the Case of Joseph Gould, æt. 20, November 28, 1832.*

Externally, the body did not present that extreme degree of emaciation which is generally to be observed in patients who die from tubercular disease of the lungs. The chest was full, and completely dilated; remarkably dull on percussion. On reflecting back the sternum, the lungs had the appearance of being much distended, but not unhealthy. To the touch, however, they felt dense, and crepitated only in one or two parts. The pleuritic adhesions were so firm on both sides, that the lungs were obliged to be dissected off.

On removing them, it was found that only a very small portion was sufficiently healthy for the purposes of respiration; the chest on each side being occupied by tumors of a medullary nature. On the right side was one almost as large as the healthy lung itself. This tumor was slightly lobulated externally, and had internally a cyst, divided imperfectly by a septum, and containing about eight ounces of dark-coloured serum. Some parts of the tumor were of a soft and fibrous texture, and in colour and other respects very similar to firm brain; other parts had a red appearance, occasioned by minute specks of blood; and, again, others were transparent, or gelatinous. The lung, or rather the pleura, was expanded over this morbid structure, and could be easily torn from it, leaving the latter entire and smooth.

Part of the upper lobe appeared to be the only remnant of lung existing on this side; and even this was of a vivid red colour, and contained numerous small tumors both in its substance and on its surface.

The left side of the chest contained numerous tumors, but none were so large as the one described. One was about the size of a man's fist, and another, less, was situated immediately behind the heart. It was very vascular, particularly on one side. It contained no cyst, but the centre was filled with a greenish, straw-coloured, gelatinous substance. Very little healthy lung was left on this side.

The pericardium was very closely connected to these morbid structures, and contained a small quantity of fluid.

The heart and abdominal viscera were quite natural.

In attempting a general character of these structures, we may define them as being of a true medullary or encephaloid nature, containing different deposits—as blood, transparent lymph, or gelatine and serum. Some of the small ones contained a drop or two of fluid blood, which scarcely appeared to have escaped from any vessels severed by the knife. Others were homogeneously constituted. In some of the larger tumors the different deposits co-existed. All were invested in a delicate cyst, and imbedded either in the substance or on the surface of the lungs, under the pleura pulmonum. The tumors varied in size, from a pea upwards to the extent mentioned previously.

It is worthy of remark, that this patient had suffered amputation of his leg about four years ago, in consequence of a tumor of the same nature, which occupied about eight inches of the leg, immediately above the ankle-joint.

Case II.—*Postmortem appearances in the Case of William Brown, æt.* 36, *July* 30, 1833.

"The left lung was infiltrated with pus and the left pleura was inflamed, as was also the pericardium. There was a large quantity of serum in this pleura, and the pericardium was very much distended with a dark coffee-coloured fluid. The bronchial glands of this side were very much enlarged, and changed, for the most part, into a white medullary mass, which involved the left primary division of the bronchi in it; and though the wrinkled state of the lining membrane enabled us to trace its passage, the colour was lost, as also was most of the cartilaginous substance.

"A part of this medullary mass was quite soft, and almost fluid; and in another part it had a pinkish hue. There were also some fibrous white bands traceable."

It would be nugatory to mention, in detail, the *symptoms* and *treatment* of the patients. It will be sufficiently obvious that the symptoms scarcely could be more than negative, as to the precise nature of the morbid degeneration of the lungs. Laennec would seem to have thought that the stethoscope might detect the existence of *encephaloid* tumors in the lungs, when voluminous, but has not indicated the means of thus discriminating their character. In the two cases occurring in the Birmingham Hospital, the outline of the more urgent symptoms was that of bronchitis, and the treatment was adapted to the only indications afforded. A coincidence with these views and observations will be noticed in the article of the Dictionnaire de Medecine et Chirurgie Pratiques, to which reference has already been made. The term "cancer," it should be remarked, is adopted by the writer, M. Bouillaud, in a generic sense; but, with Laennec, he applies it especially to schirrous and encephaloid growths. Dr. Carswell, in his valuable pathological work (Fasc. 2), also constitutes "carcinoma" a genus comprehending those diseases which have been termed scirrhous; common vascular or organized sarcoma; pancreatic, mammary, and *medullary sarcoma*; and fungus hæmatodes.

PRESENT STATE OF THE MEDICAL PROFESSION IN THE WEST OF ENGLAND[*].

The practitioners in the West of England are numerous, and for the most part respectable; the majority of them belonging both to the College and Hall. From the best calculation I can make of the number of general practitioners in the towns, I find there is one to every thousand inhabitants; in many instances, however, there are two or more to this number of people. In most of our provincial towns (even small ones) we have a physician or physicians, and the chemists and druggists are in the proportion of two to every three thousand inhabitants.

The general practitioners are not in the habit of charging for visits or attendance in the towns, and the only way in which they get remunerated in medical cases, is by making out bills for their medicines, charging each article separately, and specifying the quantity sent from day to day. Journeys out of the town in which the practitioner resides are charged for, and the charges vary from two shillings and sixpence to five shillings: it is not usual to charge more than the latter sum, except the distance exceeds seven miles. It is not common to make any charge for meeting a physician in consultation.

Parishes are usually let by tender, and the lowest bidder generally gets the appointment to take charge of them. The low rate at which persons are found to accept them is truly disgraceful to the members of a respectable profession. I will name a few particular instances to prove the fact; assuring you, at the same time, I could cite a hundred similar ones. The Parish of East Coker, Somerset, containing upwards of 1400 persons, the majority of whom are paupers, is attended by a practitioner—a Mr. Hansard, of Montacute—residing four miles from the place, at a salary of 12*l.* per year; and for this sum he includes all medical and surgical cases, accidents of every description, small-pox, inoculation, or vaccination, and difficult midwifery cases, together with attendance on coroners' inquests, lunatics, &c. Mr. Hansard stipulates to attend regularly at the poor-house three times a week, independently of all other calls; and, on a moderate calculation, his turnpikes must cost him at least three pounds in the twelve months; such being the usual terms of agreement where parishes are compounded for. The parish of East Chinnock is attended by a practitioner—a Mr. Gerrard, of Crewkerne—residing five miles distant; who compounds for all cases at 8*l.* per year. The population is about 1000, and by far the greater number are paupers. Mr. Gerrard has to pay two turnpikes every journey he takes. The parish of Piddle-Trenthide, Dorset, is attended by the Messrs. Davis, of Cerne, residing at a distance of four miles, at a salary of 10*l.* per year. The population is upwards of 800. The sum paid for medical and surgical attendance on the poor of the same parish, in the year 1814, was 70*l.*; but owing to the disgraceful system of letting by tender, it has been reduced to the sum above stated. The parish of Stoke Sub-Hambdon, Somerset, is attended by a Mr. Westcott, of Martock, residing two miles distant, and he compounds for every case that may occur, agreeing to find medicines and surgical instruments at a salary of 8*l.* per year: the population is upwards of 1600. There are a vast number of paupers at Stoke, and they are very liable to serious accidents, in consequence of their being employed to quarry and hew stones, which are used in almost every building of consequence within twenty miles of the place. The parish of Norton Sub-Hambdon consists of a population of 800 persons; the paupers are numerous, and generally employed at the stone-quarries; the poor are attended by a Mr. Stuckey, of Martock, who compounds for all cases at a salary of 5*l.* per year: the distance of Norton from Martock is three miles. Chisselborough, a parish four miles distant from Martock, is also attended by Mr. Stuckey, and every thing compounded for at 5*l.* per year: there are seven or eight hundred people, and the paupers are principally employed at the Hamdon stone-quarries.

Whilst this plan continues, the poor

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[*] Originally addressed to the Council of the Royal College of Surgeons, by one of whom we have been favoured with the document.—Ed. Gaz.

ever will be neglected and maltreated; but it appears to me that an effectual remedy can be provided in the following way. If, for instance, parishes were obliged to pay a certain sum per cent. on their pauper population, for medicines and surgical applications, the surgeon taking the risk of illness and accidents,—and then for him to be allowed so much for each visit in his own town, and so much per mile for journies out of the town,—if such a plan was put in force, the parish-rate payers could not select the cheap surgeon, but they would choose the one whose professional skill and honourable conduct was in the best repute; the competition would be between men of skill, and the greatest stimulus would be given to the acquirement of sound professional knowledge. These are facts; and however the more respectable practitioners may attempt to keep up fair and reasonable charges, they find it impossible, as there are low undermining men ready to intrude themselves wherever they can get a footing, and on the plea of cheapness. Such persons can always gain appointments from the farmers, overseers, and rate-payers of country parishes. Degrading as these facts are, the Council will be surprised to find that, in many instances, parishes are attended by ignorant chemists and druggists, in ordinary cases; and where disease assumes a more formidable character, the overseer often sends the paupers to a physician, or some one goes to him to describe their disorders. The physician prescribes, and sends the patient to the druggist, who supplies the medicines, and the consequence is that acute cases run their course, either to death or convalescence, without bleeding or cupping ever being prescribed or practised. The extent to which chemists and druggists prescribe and dispense medicines behind their counters, is, of all others, the greatest grievance of which the general practitioners have to complain; and at any time I would swear, either before the Council or a Committee of the House of Commons (if examined on the subject), that the chemists and druggists of this town, and most provincial towns in the west, prescribe and dispense more medicines, dress more wounds and ulcers, inoculate and vaccinate more patients, than the general practitioners. This is independent of the monopoly carried on between the chemist and physician in the way of prescriptions; which, too, is very extensive. Of course I am aware that the Apothecaries' Act of 1815 provides a remedy against those who were not in practice prior to that time, visiting patients; but although we know the fact, there is great difficulty in bringing persons forward to prove it, and I think the general impression is, that the act does not prevent the chemist from prescribing and dispensing at his own counter.

The parish officers in this vicinity refuse to remunerate medical men for attending coroners' inquests; and I have myself been kept from my practice, in several instances, the greater part of two days, at an inquest, and refused remuneration.

The law, as it regards accidents and casualties, is most defective. For instance, a pauper belonging to one parish, A, meets with a serious accident in the parish of B; the surgeon resides in the parish C. The accident is of such a nature that no time is to be lost in finding out the overseer to get an order, and the surgeon is obliged to act immediately; and after having done so, he is either compelled to give up the case to some practitioner in whose skill he has no confidence, and who, perhaps, if the case terminated unfavourably, would be illiberal enough to declare that the fault rested with the person first called, or else he must consent to act gratuitously; as in nineteen cases out of twenty would be the case. The parish of A, for instance, would not pay, as they had not been applied to: the parish of B would not pay, on the plea that the pauper did not belong to them, even if he resided there for a time, as they would say he had not gained a settlement; and the result would be the same with the parish C; or else they would say, you are not our regular parish surgeon, and therefore have no claim; we would have sent our own surgeon if we had been applied to. Such is the manner in which I have been treated in very many cases, where the delay of finding the overseer, or parish surgeon, might have been fatal; and every professional man, in extensive practice, can state the same of himself. The law, therefore, I presume, ought to provide that the surgeon who attends promptly should be remunerated; as the public clamour, in case of his refusing to go to an accident, or to act when he arrives, may for ever ruin him. The probability is, that the surgeon is fetched to the accident by the servant of some nobleman, esquire, clergyman, or farmer, whose kindness simply extends to the act of sending for him; for when the bill is presented, he is told to take it to the parish officers, and then he finds himself situated as I have described. Such is our misfortune in instances of compound fractures, with wounds of arteries, severe injuries of the head, compound dislocations, &c. &c.

I cannot here omit to mention one fact, which, some time since, happened to a respectable surgeon in this neighbourhood. He was sent for to a poor man who had met with a very serious accident, and on his arrival found him by the road side. He directly said, "I can do nothing for the man here, you must take him to the inn;" which was near the spot, and in the parish where the injury was received. The accident was such that the surgeon was obliged to attend to it without delay, and the man remained at the inn many weeks afterwards, before he could be removed to a distant parish, where he belonged. After his recovery, the surgeon sent his bill to the overseers of the parish where the accident happened, and they resisted payment, as they had not given an order. The surgeon then applied to the parish where the man belonged, and they also resisted payment; pleading that they were not liable, as they had given no order to the medical attendant, and the accident happened in another parish. The surgeon found, that as he had acted without an overseer's order, he could not recover his charges by law, and the individual himself was unable to pay him. This, however, was not all; the innkeeper was refused payment by both parishes for the keep, attendance on, and nursing this pauper; and not being in a situation to lose his expenses, he naturally inquired who sent the man to his house; and finding that the surgeon had ordered him there, and given directions for his food, nurses, &c. he actually brought the charge on him, and the surgeon was compelled to pay the whole expense.

The system of quackery is carried on in the West of England to a most extraordinary extent; as there is not a chemist, ever so obscure, but has his cough, aperient, and digestive pills, worm-powders, &c &c; and thus the regular practitioner is materially interfered with Every neighbourhood is infested with some bone-setter, or notorious advertising quack, and the number of persons who flock to them is really incredible, except to those of us who have an opportunity of witnessing the fact; persons, too, who are in a situation to afford to remunerate a regular practitioner, but are duped by the puffing advertisements of those individuals.

From these various sources, then, the Council will readily perceive, that without parliamentary interference, and such immediate enactments as will secure the general practitioner from such abominable intrusions of illiterate and unqualified individuals, as well as from the unjust interference of the physicians, the honour and respectability of the profession will be for ever lost, and the attempts of the College to render its members intelligent and competent in all respects to discharge the duties required of them with fidelity and honour, will be rendered unavailable; and I therefore humbly implore the Council to impress on the legislature that an inquiry into the laws and regulations of the College can in itself be of little avail, unless they also institute such an inquiry into the general state of the profession, and the actual situation of its members, as will secure their protection, and put them in such a situation as the charter of the College originally intended, and as they have a fair right to expect; as those of us who wish to maintain the respectability of the profession cannot absolve ourselves from the concluding sentence of the oath taken on our becoming members of the College—"that we will demean ourselves honourably in the practice of our profession, and, to the utmost of our power, maintain the dignity and welfare of the College: so help us God."

(Signed) Wm. Tomkins,
Surgeon, M.R.C.S.

February, 1834

We, the undersigned members of the Royal College of Surgeons, residing in the town of Yeovil, fully concurring in the account given by Mr. Tomkins, of the general state of the medical profession in the West of England, beg to subscribe our names in corroboration of the same.

(Signed) Thos. Shorland.
Markes Lambe.
John Moore.
G. E. Hooper.
Wm. Shorland.

BARRISTERS AND PHYSICIANS.

To the Editor of the Medical Gazette.

SIR,

AMONG the numerous projects of medical reform called forth by the present agitation of the question, the one recommended by your correspondent, Φ, in your last number, amuses me the most. His words are, "Among the private arrangements between the medical men that it would be desirable to establish, I should recommend that no M.D. should give advice without the co-operation of a general practitioner, who would, as a matter of course, prepare the medicines; and from his more frequent intercourse with the patient, would be of no small use in consultation with the prescriber. Barristers (except in court), will give no opinion but on being applied to by an attorney."

This might be a very good arrangement, provided the general practitioner was obliged to call in a physician after a certain number of days' attendance. But if general practitioners are able to persuade their patients that the education they now receive renders them competent to the care of the most difficult cases, and that the attendance of a physician is perfectly unnecessary,—and we have many instances of the calling in of a physician being stoutly resisted,—will not the proposed arrangement be tantamount to driving the physician out of employment? The instance of a barrister, adduced by Φ, will not serve him: a barrister gives no opinion on a case without being applied to by an attorney—because he cannot. To enable him to form an opinion, it is requisite that the case should be *technically* stated, and for this purpose an attorney becomes actually necessary. But a physician has eyes and ears, and all his senses perfect, and can himself ascertain all the points which are requisite for him to know. Besides, the interests of a barrister and of an attorney can never clash. It requires a wiser head, I fear, than that of your correspondent, to place the medical profession in a healthy condition.—I am, sir,

Your obedient servant,

Σ

Feb. 28, 1834.

MEDICAL GAZETTE.

Saturday, March 8, 1834.

"Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."

CICERO.

ANALYSIS OF THE NEWEST *REPORT.*

THE statement just put forth by the managers of the Gower-street School is a remarkable one in its way. It will be recollected that the report published last year was exceedingly desponding and lachrymose: it professed "the most open dealing," and we gave it ample credit at the time for its candour; but it incurred the hot displeasure of a number of knowing ones, because, in fact, it most indiscreetly told—the truth. "What!" said one of these worthies, "is this the way in which *men of business* act when they would *make a push to improve their circumstances*? When they wish to raise a loan, do they represent themselves as bankrupt or insolvent?" Upon this hint the managers, in the present instance, have evidently acted: they come now before the proprietors of the speculation with nothing but congratulations on their lips, and announcements of bright prospects which are to come. No longer do they venture to hint at being "reduced to the necessity of giving notice that the institution cannot re-open;" no, no,—all that sort of thing has been changed: it is never too late to learn from the precepts of experience. The style is altered: their affairs are blazoned in the true "Ercles' vein." In looking through the new report, every one is struck with the abundant repetitions of the "Senate" and the "University"—the "Council" and the "Faculties" of arts, law, and medicine, with their respective deans and chapters—"Professorships" and "Chairs"—and "new Professorships" and "new chairs," just instituted, or "under immediate consideration."

But some one, looking superficially over the document, may say, "Perhaps there is reason for all this boasting: may not the Gower-street establishment have been unusually prosperous during the last year; and if so, why not allow the parties to exult a little in their good fortune? What may be the principal *facts* laid down in the report?" Why, truly, this is what we have taken some pains to come at; and so ingeniously do the *facts* seem to be wrapt up in the new system of account-keeping, that it requires no small attention to make them out. But divested of verbiage, and examined with a plain matter-of-fact scrutiny, it would appear, that in the Faculty of medicine there has been an increase in the number of pupils, as, indeed, has taken place in the schools of London generally; but for the other Faculties—small and sinking as they were last year—the diminution has since gone on steadily; and even the boys' school—the hope of the establishment—the chief boast in the report of last year—has suffered a decrement. As to law and jurisprudence, in these the failure has been signal: the professor of the latter has given up lecturing altogether, for want of pupils; and the class of the former has so dwindled away, owing to *untoward* circumstances, that we are informed the learned occupier of the chair intends to bid adieu to the "University" as soon as he can get himself well disentangled from it. Yet, though the managers slightly advert to this circumstance, it by no means prevents them from pursuing the bold career they have adopted: the more bold, perhaps, as the prospect is more truly barren. They talk of instituting *additional chairs of law*—of the civil law—the law of real property—and the doctrines and practice of courts of equity;—English law and jurisprudence having been so very flourishing! Nor are these the only new chairs in contemplation: there are others *in esse*, as well as *in posse*; while for many of those already established no pupils can be obtained. Sanscrit and the Oriental languages are appointed to be henceforth distinct professorships—what a humbug!—while the professors of German and Italian are unable to get a single pupil.

Thus, then, the *soi-disant* University, with all its affectation of having professors (whether with pupils or not, seems to be quite a secondary matter) to teach every thing under the sun—except theology—turns out to be simply a medical school, with some general classes attached to it, and an abundant *list* of teachers in different branches of knowledge. It is, as we have all along considered it, a medical school—one out of many with which the metropolis is supplied, and much inferior to several of them. In this respect it is unquestionably inferior;—it is wholly unprovided with the means of clinical instruction. This its managers well know, and are incessant in their efforts to move heaven and earth, and organize, if possible, something in that shape. The *Valetudinarium* is a monument of their anxious zeal. There it stands, in all its nakedness, with its bare unplastered walls; and miserable and mendicant as it looks, it is in debt to the amount of about 1000*l.*! It is amusing to observe the shifts made in the arithmetical statements before us, in order to shew the feasibility of turning this structure to account. We are told that (in addition to the debt just mentioned) it will require 2000*l.* to finish it, 1000*l.* more to furnish it, and *only* a few hundreds for the management in the meantime; that is to say, till it is ready for service. This makes up a desideratum of about 4200*l.* on their own shewing, before a single patient can be received. Now, as all the subscriptions are expended—that is to say, the ***subscriptions paid***, for we cannot be persuaded, as the skilful accountant would have us, to admit that "subscriptions in arrear" should be reckoned as received or available—the Caroline fund of 1200*l.** is the only set off; leaving a clear deficit in the hospital finances of about 3000*l.*

We say nothing of the gross miscalculation (if it deserve not some broader epithet) by which 1000*l.* is set down as sufficient to furnish the building; a building to contain from 130 to 160 beds! Of this we have, on a former occasion, fully expressed our opinion. But the inuendo dropped about the present expense of the Dispensary is worth noticing: it appears that that establishment is a losing concern, to the amount of 150*l.* per annum; and the proprietors are gravely told, that by completing the hospital this 150*l.* will be saved. What greater encouragement can be *held* out? The school has a dispensary, as it is, attached to it; pupils attend, but after all it is a losing concern, to the amount of 150*l.* But so much saved, so much gained; abolish the Dispensary, say the managers, and there is a good 150*l.* per annum at the disposal of the hospital fund—a better donation, at this rate, than the Caroline fund itself! But, again say the economists, we cannot give up the Dispensary till the Valetudinarium is *begun*; give the pupils an hospital to attend, and we shall lose no more by the Dispensary. We should like to hear proprietor Joseph Hume's candid opinion of this proposition; we fancy we can hear him mutter grumblings at the stupidity that threw out such a lure;—at the simplicity of those who shew the public what chance there is of the Valetudinarium supporting itself by pupils' fees, when, with all the fees received from students at the Dispensary, that concern, attended with an expense comparatively so trifling, is a dead weight to the expenditure of the school, to the amount of 150*l.* a year. We can readily conceive, if it were the reverse—if 150*l.* could in any way be shewn to be *gained* by the Dispensary—how the changes would be rung on that fact. As it is, the only reasonable manner of stating the question is this—if the institution loses 150*l.* by a Dispensary, how much more would it cost to keep up an Hospital?

Then there is the juvenile establishment—the boys' school—which formed so important an item in the prospects of last year, and which, indeed, is still so important a feature in the organization of the "University,"—though removed to the body of the building, and now occupying the most prominent part of the structure—even this has fallen off, having fewer pupils now than it had in 1833. This has an untoward aspect, when we take into account that, chiefly on this school, has there been expended the better portion of the 1000*l.* raised on a sudden emergency last year, by way of loan, from ten proprietors—half of which loan remains unpaid.

And this leads us to notice another circumstance that struck us in looking over the accounts. This school loan, as well as the mortgage of 4000*l.* raised in the course of last year, is set down under the head of *capital* in the general account of income and expenditure; by which manœuvre they are enabled to throw in the captivating item of so much cash—some 1000*l.*, or thereabouts—at the banker's. Now, in our plain way of looking at such an item—our first impression *was*, that the affairs of the establishment were so unembarrassed, as to leave so much cash at command, for the benefit of the institution; but considering that the mortgage and the school loan are yet unpaid, and that the former bears a considerable interest-charge, our inference *is*, that in place of having *any* money at command—with the exception of Queen Caroline's fund, and a chance donation—the Gower-street school is actually some 3500*l.* *minus* the state of solvency. But the mortgage, no doubt, is good; it is put down as *capital!*

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* The Caroline fund intended to endow certain *wards*, by the way, is not sufficient to support *three beds* in any well-organized hospital.

We shall, of course, have little thanks from the *friends* of the "University" for the remarks we here offer regarding their affairs; but what we have said is conceived in a spirit of sincerity and candour, however unpalatable it may be to the stock-jobbing portion of the proprietors, or those among the teachers who choose rather to mystify the public than to rest upon their merits. We have shewn, then, that the University, so calling itself, is properly nothing more than a medical school, offering some facilities for education similar to those possessed by an ordinary academy, but deficient in that best source of professional information with which such a school should be provided—a well-organized hospital. The *Faculties*, as they are called, have on the whole suffered a decrement—feeble as the said faculties have ever been; and one of them is on the brink of being extinguished. Even the junior school, from which so much was expected, does not keep its ground. Yet, notwithstanding this, in the face of the public—for let it not be thought that we have gone out of our way to procure the information here detailed, and to comment on it for the benefit of our readers—notwithstanding the facts so ingeniously mystified in the annual statement, but sufficiently intelligible to all who choose to reflect — notwithstanding all this, the Council talks big of new chairs, &c., and holds forth that none are so fit as themselves to be endowed with the rights and privileges of a real University. The Council last year, in announcing the dilapidated state of their finances, proposed various "*schemes*" for bettering their condition —among these, the first in the list was that of obtaining a charter, enabling them to confer degrees in all the faculties—arts, law, and medicine—divinity alone excepted! Verily, we give them credit for this same "scheme," and for the time they have chosen for pressing it; thus virtually striving to forestal the result of the parliamentary inquiry which is in progress. The bold mode they have adopted in pushing their affairs as "men of business," shews that they have profited notably by the hints given them last year*.

MEDICAL DEGREES IN LONDON.

A MEETING was convened on Monday, the 17th ult., at which deputies attended from all the principal hospital and private schools of medicine in the metropolis, for the purpose of adopting such steps as might be deemed necessary, in the event of the London University pressing for any *exclusive* privilege in conferring medical degrees. We understand that the sense of the meeting was strongly expressed in favour of freeing the dissenters from the disabilities they at present labour under with respect to English degrees in physic; but protesting against the establishment of a new monopoly in favour either of the London University or any other teaching body whatever. A general committee was appointed, consisting of a representative from each school; and a sub-committee, consisting of Sir George Tuthill, one of the oldest private lecturers in London. Dr. Watson, of King's College; and Mr.

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* By a singular oversight in our last number, page 837, we represented the proprietors of the London University as periodically sending round a report that their application for a charter had at length been *unsuccessful*, we need scarcely say, that the word ought to have been *successful*.

Lawrence, of St. Bartholomew's, wer nominated to carry into effect any such measures as might be deemed necessary for securing the objects of the meeting.

PHYSICIANS AND GENERAL PRACTITIONERS.

The letter of Σ (see p. 873) contains some remarks which we think are fairly called for by the observations of Φ, in a former number. Once for all, we would have it distinctly understood, that in selecting the letters of our correspondents for publication, we are guided by no feeling of party: on the contrary, we wish to give a fair field, and no favour, to those who entertain even the most contrasted sentiments. We need scarcely add, that we do not consider ourselves bound by the opinions expressed in any contributions to our pages, except those which appear editorially.

NATIONAL MEDICINE AND STATISTICS.

To the Editor of the Medical Gazette.

Sir,

In your leading article of the 22d February, on the Statistics of the Profession in some of the capitals of Europe, you state that it is fair to presume that London is less efficiently supplied with medical assistance than Paris or Berlin, because the Doctors-Graduate in the former are proportionally much fewer than in the latter capitals. Now, without contending for equality of education, the general practitioner may fairly appeal to the most essential test of ability for providing for the medical service of the public, by a reference to the value of life in the three capitals quoted. Dr. Bisset Hawkins, our best authority on this subject, gives for the annual mortality of Paris, one in thirty-two; of Berlin, one in thirty-four; and of London, only one in forty.

A difference in the one instance of one-fifth, and in the other of rather less than one-sixth, in favour of the English capital, which (with every allowance for the different circumstances of the three cities), is still amply sufficient to convince the inhabitants of London that however inferior in title their medical attendants may be to those of other capitals, that in real efficiency for service they need not shrink from a comparison with any. Trusting that your known impartiality will induce you to insert this, I remain, sir,

Your obedient servant,

Unus Quorum.

March 3, 1834.

[It would be very gratifying, indeed, if the superior salubrity of our metropolis could be really attributed to the cause surmised by our correspondent: but the low rate of mortality in London is well known to depend on many circumstances which have more to do with medical police than medical practice; and it seems to us to afford at best but a *negative* proof of the efficiency of London practitioners.—Ed. Gaz.]

HOTEL DIEU, PARIS.

Case of Hypospadia; *with Remarks illustrative of the Treatment of that species of Malformation.*

By M. Dupuytren.

A child who laboured under a malformation of the urethra, was brought to the Hôtel Dieu in September last. The orifice of the urethra was placed about an inch and a half below the extremity of the glans: the latter was imperforate. When the urine flowed, it issued perpendicularly from the penis The jet was small, and the evacuation incomplete and requiring an effort. The bladder was never perfectly empty, and the little patient could make water whenever he was desired. Such a position of the orifice of the urethra must render the individual unprolific: the semen could not be ejected towards the neck of the uterus; and for this reason, together with a desire to remove, if possible, the awkward condition of the parts, M. Dupuytren proposed to form an artificial prolongation of the urinary passage, so that it might terminate in its natural situation. His purpose was to effect this by the white-heat cautery *en roseau*, to be applied along the track of the urethra, from its extremity to its accidental opening. But the parents refused to permit the operation.

Hypospadia has been noticed by many of the more ancient surgeons, and various methods have been recommended by way of remedy. The treatment must evidently be very difficult, if not impossible, when the opening in the passage is far below the glans; and it has sometimes been so low as to raise doubts as to the sex of the party — when, for example, the urethra opens in front of the scrotum, or in the perineum. Paulus Ægineta recommended that the end of the penis, beyond the orifice, should be amputated. Galen, Albucasis, Fabricius ab Aquapendente, and Dionis, advised that an artificial passage should be made through the glans, and a leaden bougie introduced and left there for some time. By means of small clean incisions, and bringing the lips together, cicatrization of the opening was effected, and a canula remained in the passage till the cure was complete. But modern surgeons have been pretty generally opposed to any operation of the kind. Sabatier speaks positively against it; and Richerand agrees with him in thinking that any canal so formed must necessarily become obliterated. M. Dupuytren, however, who is of opinion that individuals affected with hypospadia are for the most part barren, has ventured to depart from the precept and practice of eminent authorities, and, in one instance at least, has had reason to be satisfied with his determination.

Twelve or fifteen years ago, a child, the heir of a rich family (much interested, of course, in his preservation), was brought to M. Dupuytren. Hypospadia was the complaint sought to be remedied. There was, at the root of the penis, a very small opening, by which all the urine passed slowly and with difficulty. From this point to the extremity of the glans there was no trace of an urethra. At the request of the parents, M. Dupuytren undertook a mode of treatment. He introduced a delicate trochar, from the anterior inferior part of the glans, along the track which a natural passage would follow, and pushed the instrument until it reached the accidental opening. He then cauterized the passage with the white-heat cautery *en roseau*. Very violent inflammation ensued, almost threatening gangrene; but by the proper use of antiphlogistics, this was subdued. An abundant suppuration followed. A gum-elastic catheter was introduced along the artificial passage, and continued into the bladder: it was kept there for three months. The accidental opening was several times touched with nitrate of silver, and was ultimately closed. The urine, at the end of this time, flowed freely by the new passage. But M. Dupuytren recommended that the catheter should still be employed, till the cure was complete and satisfactory. The child was then removed from Paris, and M. Dupuytren has reason to believe that every thing turned out successfully in the cure.

When hypospadia is carried to an extreme degree, it sometimes leads to strange mistakes, touching the sex of the individual. It constitutes a sort of supposed hermaphrodism, when its seat is in the perineum; the scrotum is then divided into separate folds, which resemble the labia, each of the folds containing a testicle; the penis, if not well developed, simulates the clitoris; and the opening of the urethra is taken for the orifice of the vagina.

M. Dupuytren knew a most curious case of this kind. A person affected with hypospadia was married for fifteen or twenty years, and during that period was treated as a female. Sexual intercourse was regularly effected by the canal of the urethra; nor was it till that length of time had clapsed that it was discovered the individual was a man.—*Journal Hebdomadaire.*

CASE OF EPISPADIA.

By Dr. Cramer.

In the autumn of 1828, during the levy of troops in Wesensee, I had an opportunity of examining a young man of 21, who had a remarkable malformation of the urinary organs. The urethra did not lie in its usual place beneath, but above, the corpus spongiosum, and was divided in its whole length from the arch of the pubes to its extremity: the penis was of the natural length. The mons veneris was wanting, but in its stead there was a reddish skin, covered with a scaly cuticle, and destitute of hair. Beneath the pubal arch there was an opening, into which a finger might be readily introduced, so as to reach the isthmus. The glans was also divided, and the rudiments of a prepuce were observable about its root. When the margins of the fissure were brought together by pressing them on both sides, they were found to coincide pretty exactly. There was nothing apparently amiss with the scrotum and testes: and the animal passions were energetic, though the young man denied that he had ever had any sexual intercourse. His parents were healthy people, and none of his brothers or sisters ever had any deformity that he was aware of. It should be added, that this person laboured under incontinence of urine; and for the greater convenience of emptying the bladder, was in the habit of generally wearing a petticoat instead of breeches. Does not malformation of this kind belong to the hare-lip and cloven-palate species: and might it not be cured by similar means ?—*Medicinische Zeitung; edited by Dr. Hecker, of Berlin.*

KREOSOTE AND ITS PROPERTIES.

The substance to which the appellation kreosote, or the *flesh-preserver*, is applied, is one of the latest-introduced therapeutic agents on the continent. To it, M. Reichenbach, its discoverer, and others, who have tried its efficacy in the treatment of cancer, syphilis, &c., would ascribe all that was formerly accorded to Bishop Berkeley and his tar-water—"every virtue under heaven." It is curious, by the way, that kreosote would appear to be the active principle of tar. We must of course be prepared to hear this new remedy forthwith cried up in all quarters, until it is displaced by something more new. Its chief property seems to be that *it coagulates albumen*; but all that is worth knowing with regard to kreosote, and the mode of obtaining it, is embodied in the following abstract from the Edinburgh Journal.

M. Reichenbach, of Blansko, has recently found in the products of the destructive distillation of wood, a new substance, which he terms Kreosote, from the Greek words *κρέας* and *σωζω*.

This substance is highly interesting, not only on account of its chemical properties, but from its useful application to therapeutics, domestic economy, and the preservation of provisions for long voyages. Two processes are given for its preparation: by the one the kreosote is obtained from pyroligneous acid, by the other from the tarry matter which distils over along with that acid. These processes do not differ much; both are tedious, but the latter method seems to be the easier. The tarry matter yields an oil by distillation, to which, after being rectified and heated, carbonate of potash is added, to neutralize the acetic acid associated with it. The acetate of potash separates, and the oil is again distilled, care being taken to reject the first products, and not to carry the distillation to dryness. The oil that comes over is then treated with a solution of caustic potash of sp. gr. 1.12; great heat is produced, and a portion of eupione, &c. formed, which floats on the surface. These are rejected, and the alkaline solution is slowly made to boil in an open vessel. A chemical action takes place,—it absorbs oxygen from the air, and assumes a brown colour. After it is cooled in the open air, diluted sulphuric acid is added until the oil is set free. It is again distilled with water, to which a little caustic potash should be added. The oil is then separated from the water in the receiver, and again treated with a solution of potash sp. gr. 1.12, boiled as before—cooled—treated with rather an excess of sulphuric acid—poured off from the sulphate of potash—well washed with water to carry off the excess of acid,—again distilled with water, to which a little phosphoric acid is added, to saturate the ammonia associated with the oil. Lastly, it is dissolved in caustic potash, and if the preceding operations have been carefully attended to, the kreosote and the potash unite, and the mixture, when heated, leaves no residuum of eupione, nor becomes brown by exposure to the air. The kreosote may then be separated from the potash by distillation, and, although not quite pure, is sufficiently so for medical purposes. The foregoing is a very imperfect outline of the process, which will be seen to be sufficiently tedious. The process will be found minutely described in the Annals of Schweigger-Seidal, vols. vi. and vii.

Kreosote is an oily, colourless, transparent liquid, possessing great refrangibility. Its odour is penetrating, disagreeable, and similar to that of smoked beef. It is of the consistence of oil of almonds, and has a sp. gr. of about 1.037 (68° Fahr.). It boils at 397.4° Fahr.; and is not congealed at a temperature of 16.6° Fahr. It burns with a smoky flame. It is a non-conductor of electricity. At 20° Cels. (68° Fahr.) it forms with water two different combinations, the one containing one-fourth part of kreosote in 100 parts of water, the other, ten parts of water in 100 kreosote.

This substance, when cold, forms two combinations with potash. The one is an anhydrous liquid, of an oily consistence; the other is a hydrate, and crystallizes in white scales. All the acids, not excepting carbonic acid, separate the kreosote from these combinations. With soda it forms combinations similar to those with potash. It has a great affinity for lime and the hydrate of barytes; with these bodies it forms compounds of a dirty-white colour, soluble in water, but which, when dried, assume the appearance of a rose-coloured powder.

Alcohol, ether, acetic ether, carburet of sulphur, eupione, and oil of petroleum, combine with kreosote in every proportion. Paraffine, though issuing from the same source with kreosote, has little tendency to combine with it. Indeed, the combination cannot be effected unless eupione be present, and is in a direct ratio to the quantity of eupione. Kreosote with difficulty dissolves caoutchouc, and only by the assistance of boiling, differing very much in this respect from eupione, which readily dissolves caoutchouc.

If to a solution of albumen in a large quantity of water a single drop of kreosote be added, the albumen is immediately coagulated. When fresh meat is put into a solution of kreosote, allowed to remain for half an hour, or an hour, then withdrawn, and afterwards dried, it may be exposed to *the heat of the sun without putrifying, and in the space of eight days it becomes hard, the colour changes to a reddish-brown, and the flavour is that of good smoked beef.* Fish may likewise be preserved by it. It is pretty evident that kreosote is the antiputrescent principle of pyroligneous acid and of wood smoke.

M. Reichenbach has ascertained that kreosote does not act upon pure fibrin, which by itself is said not to be susceptible of putrefaction. Its action upon the animal economy is deleterious. Placed upon the tongue it occasions violent pain, and when poured in a concentrated state upon the skin, it destroys the epidermis. Insects and fish thrown into it immediately die. Plants also perish when watered with it. M. Reichenbach has made experiments with this substance concentrated and diluted, and his success has surpassed his expectations. It has, he alleges, effected a speedy cure in cases of caries, of cancer, and of carcinomatous ulcers.

M. Schweigger-Seidal has made a comparative examination of kreosote, and the aqua Binelli, from which he has come to the conclusion, that the fundamental base of this hemostatic liquor is kreosote, of which it is only an excessively weak solution.

SIR CHARLES BELL'S DOCTRINE.

To the Editor of the Medical Gazette.

SIR,

As you object to any opinion in opposition to your statement of Sir Charles Bell's doctrine being given by an anonymous writer—the force of which objection I shall not dispute—I shall confine myself to the simple statement of facts which you overlook. I have but one object—that the truth should not be obscured. I repeat, that Sir Charles Bell has brought no proof whatever of what is called, in the abovementioned account, the column of the spinal marrow for respiration being particularly connected with any particular set of muscles. He speaks as if there were a set of muscles exclusively employed in respiration; whereas the intercostal muscles and diaphragm are employed in numberless acts of volition, as well as for the purpose of respiration, in which, when it is impeded, the whole muscles of the trunk are employed. If such be the facts, Sir Charles Bell's doctrine is unfounded. The only points of consequence are—are such the facts, and how far is Sir Charles Bell's view of the nervous system affected by them? By whom this statement is made is a matter of indifference.—I am, sir,

Your obedient servant,

S. Y.

March 5, 1834.

[The statement of Sir C. Bell's views was not *ours*, but given in Sir C.'s own words.—ED. GAZ.]

MEDICAL WORKS.

Medica Sacra; or, Short Expositions of the more important Diseases mentioned in the Sacred Writings. By Thomas Shapter, M.D. 8vo. 7s. bds.

PREPARING FOR PUBLICATION. — A Treatise on the Diseases and Injuries of Bones. By Edward Stanley, Lecturer on Anatomy and Physiology, and Assistant-Surgeon to St. Bartholomew's Hospital. In 1 vol. 8vo.

Also, by the same Author, a Series of Engravings, intended to illustrate the Diseases and Injuries of Bones. In 1 vol. atlas 4to.

WEEKLY ACCOUNT OF BURIALS,

From BILLS OF MORTALITY, *March* 4, 1834.

Abscess	3	Heart, diseased	4
Age and Debility	86	Hooping-Cough	16
Apoplexy	11	Inflammation	68
Asthma	45	Bowels & Stomach	2
Cancer	1	Brain	5
Childbirth	8	Lungs and Pleura	12
Cholera	1	Insanity	8
Consumption	98	Liver, diseased	12
Convulsions	48	Measles	21
Croup	9	Mortification	3
Dentition or Teething	10	Paralysis	5
Dropsy	31	Rheumatism	1
Dropsy on the Brain	16	Small-Pox	7
Dropsy on the Chest	1	Spasms	2
Epilepsy	2	Stone and Gravel	2
Erysipelas	2	Stricture	1
Fever	18	Tumor	1
Fever, Scarlet	9	Venereal	1
Fever, Typhus	4	Unknown Causes	7
Gout	2		
Hæmorrhage	1	Stillborn	17

Increase of Burials, as compared with the preceding week . . . 98

METEOROLOGICAL JOURNAL.

Feb. 1834.	THERMOMETER.		BAROMETER.	
Thursday . 20	from 40	to 51	30 04	to 30 09
Friday . . 21	41	49	30 05	30·00
Saturday . 22	37	50	29 89	30 09
Sunday . . 23	41	51	30 31	30 13
Monday . . 24	43	51	30 14	30 23
Tuesday . . 25	36	49	30 33	30 35
Wednesday 26	28	51	30 35	30·25

Wind, S.W.

Cloudy, with rain at times on the 23d and 24th; otherwise generally clear.

Rain fallen, ·075 of an inch.

Thursday . 27	from 30	to 53	30 09	to 30 06
Friday. . . 28	42	51	30·05	30 12
Mar.				
Saturday . 1	44	53	30·14	30 19
Sunday . . 2	42	53	30·25	30·29
Monday . . 3	43	53	30 31	30·25
Tuesday . 4	42	52	30·10	29·97
Wednesday 5	46	57	29 74	29·50

Wind, S.W.

Except the 2d, 3d, and 4th, generally cloudy; rain at times.

Rain fallen, ·1 of an inch.

CHARLES HENRY ADAMS.

W. WILSON, Printer, 57, Skinner-Street, London.

THE

LONDON MEDICAL GAZETTE,

BEING A

WEEKLY JOURNAL

OF

Medicine and the Collateral Sciences.

SATURDAY, MARCH 15, 1834.

PUBLIC LIBRARY

LECTURES ON THE THEORY AND PRACTICE OF MIDWIFERY;

Delivered at the London Hospital,

BY FRANCIS H. RAMSBOTHAM, M.D.

LECTURE XXII.

LABOUR.

DUTIES OF THE MEDICAL ATTENDANT UNDER NATURAL LABOUR.

FROM what we have learned of the beneficence displayed by Nature throughout the processes of utero-gestation and labour; and of the admirable contrivances adapted to overcome difficulties and avert dangers; it will be evident that in a very large proportion of cases the duties of the obstetrician must be few and simple. Generally, indeed, no *active* assistance is necessary, until after the birth of the child; all that is required of the attendant being, that he should remain an observant, though unofficious, spectator of the process;—ready to exert himself, with promptitude and energy, on the first accession of any alarming symptom; but equally, or more ready, to allow the changes necessary for the completion of nature's object to proceed, uninterrupted by any meddlesome interference: for no maxim in midwifery is of more universal application, than that unnecessary "assistance,"—rendered with the view of expediting the termination of the case, or shortening the sufferings of the patient—is not only useless, but in the highest degree injurious, and well calculated to defeat its own end.

Let it not be supposed this declaration includes the admission, that a *partial* knowledge of the obstetric branch of medicine is sufficient for the safe practice of the profession; for although, in thirty-nine cases out of forty, little is required to be done beyond protecting the extended structures from injury, separating the child, and extracting the placenta from the vagina—after its total exclusion from the uterine cavity—still, in the fortieth, danger may occur, only to be arrested by the promptest, the most energetic, and most judiciously-directed help.

Much knowledge is necessary to discriminate the kind of cases in which assistance is proper, and determine the time at which that assistance ought to be employed, as well as the mode of its application:—it is this which distinguishes the scientific from the ignorant obstetrician;—it is this important knowledge on which the life, the future health and comfort, of many of your own individual patients will depend;—which by some members of the profession is held in such low estimation, as to be thought unworthy of cultivation by the scientific and literary mind;—unfit to be possessed by men of respectable station in society;—and the practice of which has been characterized, in an official document, under the seal of the highest of our medical corporate associations, as "*an art foreign to the habits of gentlemen of enlarged academical education.*" We can only feel surprise and regret that such a sentiment should emanate from so respectable a source; nevertheless, we cannot but forgive it, because it must proceed from an entire ignorance of the subject. Those members of the profession who hold such opinions, can surely never have seen the difficulties and dangers sometimes attendant upon labour; they can never have read of them, except, perhaps, among the miscellaneous articles of a periodical journal; or even heard of them, but as rare, wonderful, and extraordinary events, the subjects of vague conversation. They can neither have studied the principles of the science in the closet, nor the application of these principles at the bed-side. For, to say nothing of the knowledge and judgment requisite to treat such perilous accidents as hæmorrhage, in all its varieties, and convulsions; a most important question,—involving no less than the destruction of fœtal life,—is often painfully forced upon the attention of the obstetrical practitioner. He is by no means very unfrequently called upon to decide whether the delivery can safely be trusted to the natural powers, or requires to be terminated by artificial aid: and whether means may be used compatible with the child's safety; or the horrible alternative must be had recourse to, of sacrificing the infant to preserve the mother. Is it of no importance that this should be determined by an educated, intelligent, and *practical* man? Is it right that questions of such vital interest should be left to the decision of one but *partially* qualified to answer it?—And can we suppose that any person can form a proper estimate of the powers with which nature is endowed to surmount the impediments, and overcome the dangers, that occasionally embarrass parturition, unless he have the opportunity continually before him of watching her operations in the more ordinary cases? For these, if for no other reasons, the interests of the public must be best protected by the obstetrical branch of medicine and surgery being undertaken,—in common with the other duties of those sciences,—by persons who have qualified themselves, by their medical studies, for the conduct of the most dangerous casualties, and who are entitled, by their rank in society, and their preliminary education, to the consideration of gentlemen.

How preposterous and unjust is it, that men holding a high rank in the profession, both of medicine and surgery,—and who, from their talents and acquirements, have deservedly obtained the confidence of the public, — should constitute themselves judges of the value of the obstetric branch of those sciences; when, by their own confession, they have disdained to make themselves acquainted practically with the functions of the female generative system, under the convenient but false assumption, that the practice of midwifery would be a degradation to their high professional character! And how much more preposterous and unjust is it, that the same persons—for these very reasons incapacitated from forming an opinion—should endeavour to underrate the importance of this department of physic, and lower it in the estimation both of the profession and the public!

It is frequently urged as an argument against the necessity of studying midwifery, as a science, that practical experience alone can give any man an adequate knowledge in the performance of the different obstetrical operations; and that, therefore, to listen to the details of the mode of performing those operations, is time absolutely thrown away; but the same objection would apply, with equal force, to surgery itself. True it is, that manual dexterity cannot be acquired by description; but the cases in which interference is necessary, the mode of applying the different powers in our possession, and the time when our assistance becomes serviceable, may be learnt by studying the principles of the science: and you will find this knowledge avail you in practice equally with, if not more than, manual dexterity itself.

In the recommendations which I shall think it my duty to inculcate, it may be thought that I am needlessly trifling your time away, by entering into minutiæ of little importance—unworthy to find a place in a series of disquisitions on any science, or even practical art;—but I beg you will understand that my observations, although addressed to you collectively, are intended principally to apply to those who are now entering on their studies for the first time. And be assured you will soon discover, that on many of these *trifles* the present comfort and future welfare of your patient may in a great measure be dependent.

Necessity of immediate attendance.—I would most strongly advise you to let every other duty give way to attendance on a case of labour, and to answer the summons immediately; for even should it happen that you have attended the same patient in a previous labour, which proved lingering, you are not to take it for granted that her subsequent cases will be equally so. The length of the labour may have been consequent on rigidity in the former instance; but the probability is, that on after occasions such a cause will not exist. That practitioner would subject himself to much annoyance and blame, who, remiss and negligent in obeying such a message, found the case terminated when he arrived. It is always desirable—however little is required to be done—that the medical attendant should be present during the principal part of the process, that he may be at hand to employ such means as any emergency may render requisite.

Instruments necessary to be provided with.—It is not desirable that we should *harness* ourselves, if I may use the expression, with the full complement of our obstetrical instruments; but there are some which it is quite necessary for us never to be without. Of course, as *surgeons*, you will always have a lancet in your pocket; as *obstetrical* surgeons, I would recommend you also to carry with you a female catheter; and if you practise in the country, never to be without a drachm or two of laudanum. Some practitioners invariably carry with them a little of the ergot of rye; but I would recommend you to leave that drug at home; or, at least, never to forget that, if it possess the powers attributed to it—of which in some instances I have not the least doubt—and if, possessing those powers, it be employed in a case unfitted for its use, it may be productive of the most serious injuries. Recollect, it must never be exhibited for your own convenience;—never with the view of expediting the delivery;—but is only to be had recourse to when the *sole* cause of delay is insufficiency of uterine action; or under some peculiar species of floodings. To meet the latter emergency alone, indeed, is its reception into your pocket-case, as a principle, admissible. The dangers likely to arise from its employment, and the cases in which it may with safety, and perhaps also with advantage, be used, will be more particularly adverted to hereafter. Others furnish themselves with a vectis on all occasions; but the objections referrible to the ergot apply here with even greater force;—this instrument is much safer in your drawer than in your pocket; since you might possibly,—provided you had it with you,—be tempted to make use of it unnecessarily, and consequently injuriously.

The patient's room should not be entered immediately.—If you are not well acquainted with your patient—and it is not unlikely that you may be called to a lady whom you have never had an opportunity of seeing professionally—or even should you have attended her on previous occasions; you should not obtrude yourselves immediately into her presence, unless there be some urgent necessity for your attendance. You had better retire into another room, and inquire of that important, but often troublesome and mischievous, appendage to the lying-in chamber, the nurse,—(who in the absence of the medical man, at least, and sometimes even in his presence, sways an undisputed sceptre in that chamber)—how long the patient has been ill; how often the pains occur; whether there is any shew or sickness; any irritation of the bladder or the rectum. By this means you gain some little information as to how the labour is advancing; or whether it has really commenced. It is very possible—especially if your patient have been much indulged in her earlier days, and be in labour with her first child—that she may shew some irritability, or petulance of temper, on being informed you are in attendance; she may send some message which, under other circumstances, would be considered insulting: you may perhaps overhear her say, that you had better go home; that she does not want to see you, and never will admit you. It would be wrong for you to take her at her word; you will be acting more wisely by tarrying in the house, if, by the description of the nurse, you think it probable your presence will soon be required. Make yourselves, then, as comfortable as you can, and construe the lady's *never*—as a lady's "never" under other circumstances often does—to signify only just so long as she remains in the same mind; for you may be sure, as the pains increase in frequency and strength, she will not only be persuaded to admit you, but herself call loudly for your assistance. It happened to me within the last week to be called in the forenoon to a lady in labour with her first child. After much persuasion I was allowed to make an examination *per vaginam*, and satisfied myself that labour had commenced, and that the head was presenting. As my immediate presence was not required, I saw her occasionally in the course of the day; and towards evening was again summoned. The uterus was now acting vigorously; but on my proposing to inquire how the labour was advancing, she would by no means permit me to make a second examination, and positively forbade my remaining with her. Observing, however, that the pains were urgent, I sat down to write at a table in her chamber; and had not been in the room a quarter of an hour, before she began to call upon me to "assist" her. I now found the head had entered the pelvis, and was beginning to press upon the perineum: from this time she would not allow me to leave her bedside for one moment; and I remained for two hours with my hand protecting the extended structures; and received afterwards the most earnest expression of her thanks for my disregard of her wayward conduct. Such cases you will, no doubt, be constantly meeting with in practice.

Having been ushered into the lady's room, it is better not immediately and abruptly to proceed *to business*, but to sit down quietly by her side; to inquire after her general health; how long she has been ill; how she has felt during the last few days; and to coax her into some general conversation. By this means she will become familiarized with your presence in her chamber; and you will learn whether there be pains, how long they continue, and how frequently they return. This knowledge you may acquire from the alteration in her manner, even although she utters no complaint. If the patient, however, be in active labour, it is an imperative duty not to let much time elapse before you require to make an internal examination.

It is very probable that an objection may be raised by the patient to this examination, when first requested to permit it; under the idea that no "assistance" can be rendered so early in the labour. As I would regard the feelings of a parturient woman in a degree only secondary to her safety, I would by no means insist on putting her to this inconvenience, unless I thought it absolutely necessary. But as I know what valuable information may be obtained under this first examination;—how desirable it is that this information should be gained, at least during the progress of the first stage;—and that time once slipt by can never be recalled;—I think it right, in every case where my request is objected to, firmly, but gently, to urge its propriety: and—as I take upon myself the liberty of constituting myself the sole judge of the necessity—I would rather, on principle, not remain in the conduct of any case, unless my suggestions were acceded to.

In requiring to make this examination, much delicacy must be used. It is not fit that we should adopt the common phrase of the lower classes, and desire to *try a pain*, or *take* a pain; these are expressions which should never escape from the lips of a well-educated gentleman: but let us tell the nurse to persuade her mistress to lie down upon the bed, *that we may ascertain how far the labour has advanced,* and *whether every thing is natural.* It is very seldom that we cannot, with a little management, persuade our patient of the necessity and propriety of submitting to this inquiry.

Information to be acquired by an examination.—Much important information, then, is to be gained by the first examination. We must learn, *first,* whether the patient is pregnant; *secondly,* whether she is in labour, if she be pregnant; *thirdly,* how the child is presenting; *fourthly,* whether the membranes have ruptured, or are still entire; *fifthly,* how far labour is advanced; and, *lastly,* we must endeavour to form some calculation as to the time that will elapse before the termination of labour. Now all this knowledge, except with regard to the probable duration of the case, can be obtained during the first examination per vaginam.

It may perhaps be thought superfluous that I should advise you to ascertain whether the patient be pregnant. Cases, however, have occurred, where professional gentlemen have been in attendance hour after hour, for days and weeks; and after all it has turned out that the uterus was unimpregnated: they have thus rendered themselves liable to some censure,—or, what is perhaps more mischievous than direct censure,—to quizzical inuendos and sarcastic ridicule. Women,—especially those advancing in years,—will sometimes deceive themselves, or allow themselves to be deceived by others, on the subject of pregnancy; and if you have never seen your patient before, or not perhaps for many months, you can have no opportunity of knowing whether she be pregnant or not, except from your own observation at the time. Many unhealthy actions may cause the abdomen gradually to swell, and simulate the appearance of gestation; and spasms of different muscles may sometimes tolerably closely imitate—as to sensation, situation, and severity—the commencing pains of labour. It happened to me to be called twice to the same woman, with an interval of eighteen months between the summonses;—in labour, as I was informed: she was on each occasion surrounded by her female friends, and attended by her nurse; the baby linen was prepared, and hanging by the fire; the toilet-table dressed, with "welcome little stranger" figured in pins on the chamber pincushion; the gruel simmering on the hob; the liqueur bottle, retiring from common observation, appeared to hide itself in a far corner of the room, ready to revive the spirits of the nurse after the fatigues of her duty were passed, or her mistress' perhaps, when the doctor's back was turned: all the common requisites of the lying-in room were scrupulously in readiness; one little point only was wanted to complete the scene, and render my patient a happy mother, and that was, that she should be pregnant. This, however, happened not to be the case: of course I retired; and in two senses, if levity may be allowed on such a subject, I might be said to have *lost my labour.*

Provided the patient be not pregnant, the deception may generally be detected, simply by placing the hand on the abdomen; but if that proceeding does not afford the required information, an examination per vaginam can scarcely fail to prove satisfactory.

When you examine the abdomen, you will probably find it distended, from flatus pent up in the intestines, or from fluid effused into the peritoneal cavity, or from the presence of some more solid tumor. You may distinguish that the swelling is softer or harder, larger or smaller, more diffused or more circumscribed, than is the bulk of the gravid uterus: that it is not of the same shape; is perhaps irregular on its surface; does not occupy the same position; and, above all, that it does not possess that peculiar springy elasticity which so strongly characterizes the impregnated womb at the end of the natural term of gestation. But if there be any doubt in your mind, it is right to make an examination per vaginam. Under this state of spurious pregnancy, you will find the os uteri not only close, but undeveloped; the cervix uteri not expanded; and the uterus itself, on poising it at the extremity of the finger, will be felt small, light, and moveable, provided it be not diseased. If, on the contrary, the patient be pregnant, and near the end of the term, we shall find the os and cervix uteri fully developed and expanded, and perhaps the os uteri somewhat open. We may be able to detect the body of the fœtus through the dilated mouth or expanded neck.

But the patient may be pregnant, and not in labour; the pains may be spurious, and not true. If you bear in mind what I before advanced respecting false pains, you will, I trust, be able to distinguish between them. I need not say that generally you will find your patient, in the first stage of labour, experiencing the dilating or *grinding* pains.

Women have the idea, that under every examination which we make during labour, we materially assist them, and expedite the termination of their sufferings. This false notion is productive of much injury; since it often leads both the patient and her friends to urge on the medical practitioner the necessity of constant, close attendance, at the bed-side; frequently to the retardation, and perhaps to the interruption or subversion of the whole process: and these solicitations are usually advanced with a fervency that it appears the extreme of cruelty not to accede to. We cannot, nor ought we to attempt to render any assistance, if every thing be progressing properly. The assistance we afford by this examination is negative at best; it merely consists in the acquisition of knowledge; the ascertaining of facts necessary and highly valuable for us to be acquainted with, that we may regulate our conduct accordingly. It is very possible that the child may be transversely placed, or some other less important malposition may require a trifling operation before the termination of labour; and we are prepared, when we have gained this information, to act at the moment which is most serviceable. It is highly injudicious, then, to delay gaining the information we seek, which we can only do by an examination *per vaginam.*

Arrangement of the bed.—Before, however, I proceed to consider the mode in which the examination is to be made, it is right that I should say something about the position of the patient, and the general arrangement of the bed. It is usually the nurse's duty to prepare the patient's bed; but often you will find nurses very stupid, and sometimes very obstinate; and occasionally you may be called to a patient who has not the questionable advantage of a professed nurse's assistance; you may then be obliged to prepare the bed yourself. Again, it not unfrequently happens that a nurse will ask the medical attendant, especially if he be a young practitioner, or if she have any doubt about his abilities, (for nurses, as well as other people, will take the liberty of forming opinions on subjects with which they are perfectly unacquainted), how he would like to have the bed guarded; that she may learn whether he is acquainted with her part of the duty, presuming that if he is ignorant of hers, he will know as little about his own. She will then insinuate, in his absence, that he is inexperienced and unqualified; and I need not tell you how easily the female mind is biassed by the confident assertions even of the most ignorant. For these reasons, we will devote a few minutes, even at the risk of its being thought *infra dignitatem*, to consider the appointment of the bed.

In many parts of the continent, even to this day, women are delivered in the half sitting and half recumbent posture. The patient, then, sits, half inclined, in an easy chair, with her legs extended; and the doctor places himself in front. This may be a convenient posture, but it is certainly not a very decent one. In "Raynold's Byrthe of Mankinde," before noticed, which was published in 1540, there is a rude engraving of "the woman's stoole," consisting of a chair, having an inclining back, and a large semilunar aperture in the front of the seat; and stated to be in common use both in France and Germany. It is still the custom, I believe, in some parts of Ireland, for the woman in labour to place herself on her elbows and knees. In this country, the patients are delivered on their left side, and on the bed. In the better ranks of society, the lady usually has on her night clothes; the mattress or feather bed having been previously guarded by a skin of dressed leather; one or two blankets are folded over the skin, and above that the sheet is spread, on which she lies. But in the lower ranks of life, women are in the habit of being delivered on the lower end of the mattress. The bed is arranged as if the patient were to be placed in it, and is then, with the superincumbent strata of sheets and blankets, turned up at the bottom, and doubled upon itself towards the head; so that there is a space at the lower part of the bedstead, occupied only by the mattress. On this space, if the patient possess a dressed leather, it is spread; if not, the mattress is protected by three or four folds of blanket, and the patient retains her ordinary dress, perhaps even to her stays. It is much more convenient for the woman to be undressed, and lie in bed, because then there is little annoyance from the change of linen after labour, and she may be removed quietly, and without much disturbance, from that side on which she was reclining to the opposite, which is perfectly clean.

Choice of a lying-in room.—In the higher circles, the medical man is sometimes asked to choose the room in which the patient shall pass the month of her lying-in; and if we have this advantage we should select one that is large and airy, and which has a dressing-closet attached to it. But in the ordinary ranks of life he is not referred to, and the patient is generally delivered in her own bed-room.

Attendants present during labour.—It is proper also that we should have some voice as regards the number of attendants who are to be present during the labour. Keeping in mind that the room should be as quiet as possible, there are yet some attendants whose services we cannot dispense with. The only persons whom I allow to remain in the patient's chamber, if I have the entire management, are myself, the nurse, and a female married friend—the mother, some other relation, or an intimate acquaintance, to act as a confidante; who will sympathize with the patient—into whose ear she may whisper all her grievances and distresses—and from whom she may receive those nameless comforts and sustaining consolations of which she so eminently stands in need. Unmarried females are neither the most fit companions for the patient nor the most useful assistants to the practitioner. In addition, however, to the persons just mentioned, I always require that a servant should be in attendance in an anti-room, or close at hand, that she may be ready to attend the bell immediately, in case hot-water or any other necessary be required from a distant part of the house; and that she should have no other duty imposed on her for the time except an obedience to the orders that may issue from the lying-in chamber.

Obstetrical dress.—Nor will it be deemed impertinent if I say a few words about an obstetrical dress. Some of the older obstetricians, I have heard, were in the habit of carrying with them an apron and a pair of sleeves; and I have seen others take the nurse's apron off, and tie it round their waist, so as to make them look more like barbers than gentlemen. It is in a great measure such unbecoming practices as these that have tended to draw upon the obstetric department of medicine and surgery the undeserved obloquy, under which it has so long laboured. It is very much the custom, even among the better ranks, to require that a napkin should be fastened round the arm. A small napkin is folded into a triangular shape, twisted by the nurse round the attendant's wrist, and secured by a pin, so that the dress may be perfectly protected. I have not the same objection to this means being employed that I have to a regular apron and sleeves; but still I think it unnecessary, and would wish that any thing which adds to the mystery or peculiarities of the profession should by all means be avoided: as far as I myself am concerned, therefore, I invariably dispense with the officious attention of the nurse, on all occasions of the kind. At the same time it is necessary, both for the sake of comfort and appearance, to be a little careful of our dress; for no gentleman would like to appear slovenly, or carry about with him visible, and perhaps not very elegant or refined, marks of his profession. Such accidents may be obviated by having a longer slit than is usual cut in the sleeve of our coat, so that it can, without inconvenience, be turned above the elbow; the shirt may then be more or less rolled up, a napkin may be loosely thrown over the hand and arm, and there is little chance of the dress being soiled. This may be done without the appearance of bustle or preparation; and before the arm is withdrawn from under the bed-clothes, the coat may be again brought over it. Thus neither will delicacy be offended, nor an idea of mystery imparted.

Obstetrical position of the patient.—Now, provided the woman be in labour, which I shall take for granted is the case, we have particularly to learn how far the os uteri is dilated or dilatable; whether the membranes are ruptured, and how the child presents: and the following is the mode by which we obtain this information. The bed being prepared in the way I have just mentioned, the patient is to be laid on her left side, with the shoulders inclined a little forward, the thighs bent up towards the abdomen, and the legs turned back rather upon the thighs. We usually observe that the nurse places the woman with the shoulders thrown backwards, so that an obtuse angle is formed at the junction of the pelvis and thighs: this position is inconvenient, and should always be rectified. The great advantage which we gain by making an acute angle at the bend of the hips, is that we give the lumbar vertebræ an inclination outwards, and bring the axis of the pelvic entrance into a more direct line with the axis of the trunk of the body. Whether, therefore, we pay any attention to the arrangement of the bed or not, it is quite necessary that we should superintend the position in which the patient places herself; as the value of one posture over another can only be appreciated by those acquainted with anatomy. If she assumes an awkward position on the onset of labour, we shall have great difficulty in getting her to change it; but *if at first she be put in that posture in which she is to be delivered, she will always return to it whenever we require her so to do.* Being placed, then, on her left side, with the shoulders thrown a little forwards, the pains coming on every five or six minutes perhaps, we sit down by her bed-side, our person being rather behind her; and having anointed the first finger of the right hand with some unctuous substance—such as lard, pomatum, or oil—we pass the hand under the bed-clothes, and, placing the two first fingers on the labia externa, we separate them, and introduce our first finger into the vagina in the direction of its entrance, which is a little backwards and upwards; or we may slide our finger along the perineum, from the anus to the fourchette, and insinuate in that manner. I need not again repeat that this must be managed with the utmost delicacy such an examination is susceptible of. Having passed our finger as high into the vagina as we conveniently can, we turn the wrist round, so that the junction between the two fingers shall fit in under the symphisis pubis, and we have a perfect command of the vagina and almost of the whole pelvis.

It is usually the practice to make this examination during the time the pain is urgent; and it is this circumstance that has given rise to the observation of "trying a pain." It is, however, on many accounts, desirable that we should not introduce our finger up to the os uteri during the acme of painful sensation; because then the membranes are protruded into the vagina, and if we press against them at that moment we may possibly rupture the cyst, and lose its advantage in the after progress of the labour. It is also better that we should not make our examination during the time of pain, for another reason: because we cannot then so well ascertain what is the presenting part, in consequence of the quantity of liquor amnii which is interposed between the child's body and our finger. Nevertheless, inasmuch as it is expected that we should examine while the uterus is acting—and, indeed, as in many cases the patient would not allow us to pass our finger at all, were it not for the belief that we can assist her, and that only during the time of pain — it is necessary that we should request her to let us know when it returns, and take that opportunity of introducing our finger within the external parts. Having gained this advantage, we must allow it to remain inactive in the vagina while the pain continues, and upon its cessation, which we have seldom any difficulty in ascertaining, we may pass it up to the os uteri for the objects already mentioned—viz. to learn whether the labour has commenced—whether the membranes are ruptured—*whether the head of the child presents—and what degree of relaxation the os uteri, vagina, and perineum,* have already taken upon themselves.

With regard to the first of these requisites, it is not always very easy for a novice to distinguish the os uteri at the commencement of labour: I have known many students attend a number of cases before they have been able to satisfy themselves whereabouts the os uteri was, or detect it by the feel. But you will generally find it looking backwards towards the hollow of the sacrum, about two inches, or two inches and a half, from the vulva, and dilated to the size of a shilling, a half-crown, or more, as the case may be. In these obstetrical tables [presenting them], by Spratt, contrived upon the ingenious plan of Hogben, you will observe the mode in which it is recommended that an examination should be made, either with the first finger of the right hand or two fingers of the left. In the first representation, the os uteri is open to the diameter of about a sixpence; in the second, to the size of half a crown; in the third, it is almost entirely dilated—the membranes being protruded into the vagina; and in the fourth, you see the situation of the child after the membranes have ruptured.

Examination of the membranes. — Having satisfied ourselves, then, that we positively feel the os uteri, let us next ascertain whether the membranes are ruptured or not. It is not always very easy to determine this point either when the patient is free from pain, because the membranes being flaccid, retreat, together with their contained waters, within the os uteri, and there remains merely a thin skin, as it were, between the finger and the presenting part of the child; so slight, indeed, as scarcely to be perceptible to the touch. But as soon as the pain returns, the soft wedge is again felt protruding externally through the os uteri, and there is then no difficulty in detecting them, if unbroken. The finger, as I have just said, should be introduced when the pain comes on, allowed to remain passive in the vagina, and only carried up to the os uteri on the cessation of uterine action: but if, under this examination, we cannot positively assure ourselves whether the membranes are ruptured or not, we may take an opportunity of examining when the next pain comes on; passing our finger up most carefully, lest we should rupture the sac prematurely;—and if we distinctly feel their protrusion, we know that the membranes are still entire.

CASES OF
GUN-SHOT INJURIES OF THE *EYE.*

BY JOHN BUTTER, M.D. F.R.S.
Physician to the Plymouth Royal Eye Infirmary.

To the Editor of the Medical Gazette.

SIR,

YOUR inserting the following interesting cases, which were obligingly drawn up by Dr. Butter at my request, I shall consider a favour.—I am, sir,

Your obedient servant,
W. MACKENZIE, M.D.

Glasgow, Feb. 5, 1834.

CASE I.—*A duck-shot impacted in the Optic Nerve for above six years.*

Mr. H———, aged 50, came from Camborne, in Cornwall, and first consulted me at Plymouth, in Sept. 1830, on account of total blindness in his left eye, accompanied with very great pain occasionally, and considerable amaurotic affection (photopsia) of his right eye. He gave the following history:—On the 19th February, 1827, while shooting, a gun was fired at a woodcock by another person, and a shot lodged in his left eye-ball, producing instant blindness. For a fortnight afterwards he did not suffer greatly; but during the last four and a half years the pain would flash so suddenly and intensely, at times, through his left eye and head, and so seriously disturbed the visual functions of his sound, or right eye, that, in whatever occupation he was engaged, his sufferings obliged him to desist for a time, to apply leeches, and resort to other remedial measures. The fear of losing also the sight of his sound eye from sympathy, added to the actual pain felt in his left, induced him to seek, and even to urge, the extraction, if possible, of the shot, which he knew from his acute feelings must be seated in some very sensitive part of his left eye.

The following appearances were exhibited:—His left eye was rather less in size than his right, but free entirely from inflammation. On the nasal side of the eye-ball a fistulous opening was perceived through the reflected conjunctiva and sclerotica, nearer to the iris and cornea than the spot at which we usually introduce the needle in depression. *I could pass a fine gold probe through this opening, nearly into the* posterior chamber; it was evidently the entrance of the shot. The iris was not materially altered. A cataract behind it could be distinctly seen.

In a consultation with my colleague, the late Mr. J. H. Luscombe, one of the surgeons to the Plymouth Eye Infirmary, we agreed at first to dissuade Mr. H. against an operation, or any attempt to search for a shot, the position of which was extremely doubtful and uncertain; but it was the wish of our patient that some trial should be made.

On the 9th September, 1831, aided by Mr. Luscombe, and Mr. Lanyon, jun., a very promising young surgeon from Camborne, and Mr. H.'s medical attendant, I extracted the cataract, which consisted of calcareous matter and spiculæ of bone. I afterwards syringed out some gritty matter from its bed. We all hoped that the removal of this bony lens might have been followed with corresponding relief, thinking that the ciliary processes had been irritated by its pressure and hardness, in such a manner as to account for the principal symptoms. In this hope and expectation we were disappointed; for on 23d February, 1833, Mr. H. came back to Plymouth, having returned from hence to his home on 6th October, 1831 (twenty-seven days after the first operation), and requested me to make a farther attempt for the removal of the shot, which his feelings denoted still remained within his eye, and caused those sympathetic sensations (amaurosis) in his right eye, the sight of which being now endangered, he was most anxious to preserve. He pointed to a blueish and prominent part of his left eye, underneath which he considered that the shot must be lodged. Indeed, this idea seemed very probable to myself, and to my brother, a surgeon at Sympstone, then on a visit here, who assisted me in hooking up this prominent portion of the sclerotica, which I excised with the scissors, and made an aperture sufficiently large to enable me to explore with the probe the internal concavity of the eye, and to allow the exit of the vitreous humour. Still no shot was found. It is needless to say, that this second operation disappointed us all; but Mr. H. determined to have his whole eye extirpated at a future period, should not his complaints be alleviated by the suppuration which followed this other attempt.

At his request, on 23d September, 1833, I removed the whole of his left eye-ball, with its lachrymal gland, and divided the optic nerve far back in its socket, close to the foramen opticum, fearing that I might still miss the object of our pursuit. On dissection afterwards, I had the greatest satisfaction to find a duck-shot, impacted so firmly in that part of the optic nerve which expands and forms the retina, that a considerable effort was required to detach it from its bed, in which it must have been fixed *for six years and six months*, closely embraced by the nerve. Such was the patient's extreme fortitude and perseverance, that not even was his hand raised, nor a syllable of complaint uttered, during this most painful operation, in which I was very kindly assisted by Drs. E. Moore and Rendle, the present surgeons of the Plymouth Eye Infirmary, and also by Mr. Square, a very intelligent pupil of the same. The preparation of the shot, *in situ*, I have preserved for my own collection.

At the end of a fortnight the patient was nearly well; but for three weeks afterwards he was detained by adhesions which formed between the lids and subjacent parts, and which I repeatedly divided. Some morbid sensations were felt in the ophthalmic branch of the fifth pair of nerves, and also in the ramifications of the superior maxillary, resembling *tic douloureux*, which I trust the carbonate of iron, taken in large doses, and vinum opii applied externally, will effectually remove. Mr. H. returned from Plymouth to Camborne on the 9th November, 1833 (about forty-seven days after the third operation.) In his last letter he writes that the strength of his right eye increases daily, and that the neuralgic complaints in his face also decrease. A glass eye has been fixed in, to correspond with the other; but the parts are too tender yet to bear it*.

CASE II.—*Sudden Blindness from the supposed rebound of a grain of shot off the Eye-ball.*

On the 1st September, 1830, I was sent for to visit T. R., Esq., æt. 41, living at Venn, near Tavistock, about fifteen miles from Plymouth. During my absence, Mr. Luscombe, one of the surgeons to the Plymouth Eye Infirmary, went over to see him. Mr. R. had the kindness to call upon me on the 23d December, 1833, and at my request to explain the particulars of his case in the following manner: — Whilst shooting partridges on the morning of the 1st September, 1830, he received in his left eye a shot, a part of the contents of a fowling-piece, fired by a young gentleman, through a thorn bush in a hedge, at a partridge. Three shot holes were made in his hat. The immediate effect to him was a sensation like a flash of fire or lightning, quickly followed by total blindness, and very considerable tumefaction of the left lids and eye. The anterior chamber was soon filled with blood, which produced a red appearance resembling the colour of a ferret's eye, or rather of a Mazard cherry. Mr. R. was conveyed home, and blooded three times on that night, and about thirty leeches were applied to the swollen parts and temple; so that neither any serious inflammation nor pain followed the accident from that time to the present. The effused blood in course of time became absorbed, and with it some portion of the vitreous and crystalline humours, as the left eye is perceptibly diminished in size. The transparency of the cornea, however, is preserved, with the form of the eye; but the iris is altered to a tawny colour, corrugated at its margin, and agglutinated to the capsule of the opaque lens. Not the least light can be discerned with his left eye; but fortunately its defects have not at all interfered with the vision of his right, or sound eye; on the contrary, he thinks he can see objects at a distance more clearly than he ever could do. There is an indentation in the sclerotica, which I think arises from a diminution in the size of his left eye, and not upon any wound or aperture ever existing there. His feelings do not give the least intimation of any foreign body in his eye; and his wonder is, where the shot could have entered, or where it can now be lodged. The most extraordinary part of this accident is, that no person should ever have been able to discover any precise spot at which a shot could have entered the eye-ball, nor the side it could have struck. Some surgeons have conjectured that the optic nerve was divided by the shot, and that its division would account for the suddenness of the blindness, and absence of pain; whilst others imagine that the shot must still be lodged in the adipose and insensible parts of the orbit, or in the bones; but the most probable supposition, in my opinion, is, that no shot ever penetrated through the coats of the eye, but merely struck violently against the eye-ball in an oblique direction, and bounded off, bruising the external or temporal side, and bursting some blood-vessels in the iris and retina within the eye, which immediately effused blood, the colouring particles of which being absorbed, a dense coating of lymph remained, became organized, and rendered the retina opaque and insensible to light.

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* After Dr. Butter had kindly communicated to me the above case, I was anxious to know some farther particulars concerning it; and especially whether it appeared that the shot had passed directly through the coats of the eye, and vitreous humour, to the optic nerve, which it had entered in the line of its axis; or that the shot had traversed his eye, making its exit at the back part of the sclerotica, and then entering obliquely into the nerve, after passing through the cellular substance of the orbit. Dr. B. replied, that the shot was very little altered in its form—a little indented with a sharp point or two; that its extraordinarily firm attachment was surprising; that there appeared to have been no suppuration, nor disposition to ulceration; and that the shot must have entered the sclerotica near its junction with the cornea, on the nasal side, passed beside the crystalline, and through the vitreous humour, to the optic nerve, where it perforates the choroid coat. —W. M.

CASE III.—*A full charge of shot received in the face—Confusion of Vision.*

So far back as the year 1814, a gentleman, æt. 33, travelled from Blackburn, in Lancashire, to Plymouth, to consult me respecting his eyes. Six years before, he had received in his face the full charge of a fowling-piece, ostensibly fired over a hedge at a partridge, by a near relation, who, there were subsequent reasons to fear, had designed to do him this mischief through base and interested motives. Shots had penetrated different parts of his face, and one had evidently entered the upper part of the sclerotica of his left eye, about two lines from the iris; but it did not appear that his right eye had been wounded. For many days after this accident he continued quite blind, owing to the swelling of the integuments of his face. The right eye could be opened first, and the light of a candle faintly seen with it; but with the left eye, opened two or three days afterwards, nothing could be seen. The sight of his right eye returned so far as to enable him to read and write a little, and to walk about; but that of the left scarcely returned in any degree for six months, when, strange to relate, it began to improve, and even to surpass the sight of his right eye, which, equally strange to say, began then to decline, and to confuse his vision altogether.

From that time every object appeared to be confused and double (diplopia) when both eyes were opened, but only single when one eye was closed; and always more obscure to the right than the left, especially in an evening, when his vision is much better with his left or injured eye, than with his right (hemeralopia.) All the parts of his right appear natural; but the iris of his left was torn at its upper margin, and rendered perpendicularly oblong instead of circular. The shot pierced the sclerotica about two lines from the iris, which was torn, but neither injured the lens nor its capsule. Belladonna acted more freely on the injured iris of the left than on the right. After dilatation with belladonna, the irides took a long time to contract to their proper form. Both lenses were transparent. The vitreous humour looked bluish in both eyes. On looking at any one object, two always appeared—viz. the original, seen with the left, or injured eye, in its relative position and proper distance; and the shadow, much nearer, and always to the left of the proper spot, when viewed with the right eye alone. If he looked at a river, a fire, a burning candle, or any luminous body, the effect was the same. A person passing in the street looked like two—natural when viewed with the left eye, but faintly represented and misplaced with the right. This confusion often caused him to run against people. He remained at Plymouth about three weeks, under my care, and returned to Lancashire with his left eye somewhat improved.

CASE IV.—*Piece of a copper cap struck into the Eye—Extraction—Cure.*

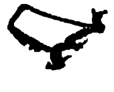
Mr. K., jun. accompanied by his father, a highly-respectable surgeon at Devonport, came to my house, in Plymouth, about nine o'clock, A.M., on Saturday the 16th May, 1829, on account of an accident which had happened to him about an hour before. In blasting off a gun, a piece of the copper cap with which the patent lock was charged, flew off, and struck into the centre of the cornea of his left eye, in front of the pupil, fixing itself between the laminæ, from which I considered at first there could be no great difficulty in removing it. During his father's absence from my house, not exceeding fifteen or twenty minutes, in fetching some instruments from the Eye Infirmary, the piece of copper had cut its way entirely through the cornea, and floated to and fro in the anterior chamber, falling occasionally to the bottom with some aqueous humour, a part of which had escaped through the wound, and the cornea itself became flaccid. Instead, therefore, of a simple, I now prepared for a very difficult operation, and found the task of perforating the collapsed cornea, with an extracting knife, by no means easy.

When I had made a section, the piece of copper became wedged between the cornea and iris, then brought into contact, and was lost out of sight for a time amidst the fibres of the iris, from which, after repeated trials with different instruments, I extracted it with the forceps, and drew out likewise some portion of the fibres of the iris, entwined around a hooked corner of the copper. (*See* fig. 1.) Some part of these fibres I snipped off, and replaced the rest with as much care as possible, closing the incised lips of the cornea over the same. After so tedious and painful an operation—borne by my young friend with the most heroic fortitude—in which I was ably assisted by Mr. K. and Dr. E. Moore, senior surgeon to the Plymouth Eye Infirmary, I prepared the father for the worst of consequences—for the loss of the eye, or, at all events, for iritis of the most violent kind. My expression to him was—you must not allow inflammation to arise; you must bleed freely, and purge, and then give him small doses of calomel and opium every three hours; and you must strive and keep your son in bed, quietly, and in a dark room, until the cornea and iris are healed, and every symptom of pain, or tendency to inflammation, is removed.

Never were injunctions more implicitly followed. The anxious and skilful father allowed no inflammation to arise; he met every change promptly, and watched his son's progress, night and day, with the most paternal vigilance. After so gloomy a prospect, never did a case turn out more fortunately. No bad symptoms appeared, without an immediate remedy. Mr. K., jun., was blooded four times from his arm, had 36 leeches applied, and took only about eleven or twelve grains of calomel, before complete salivation ensued. Excepting a slight drag of the pupil downwards, making it somewhat perpendicular, like a cat's eye, by an adhesion to the cornea—and excepting also a black spot at the junction of the iris and cornea, on the temporal and maxillary side, shewing the dark uvea underneath the spot from whence a portion of the iris was removed—no difference can be perceived between his left and right eye; and, indeed, a common observer could not find out any alteration. The circular and radiated fibres of the iris have preserved nearly all their original powers of contraction and dilatation; but in a very strong light, the under fibres cannot close quite to the same extent as formerly, and then some inconvenience may be experienced. The sight of the eye is quite as perfect as it was prior to the accident. It is most worthy of remark, that both the wounds made in the cornea, the first through its centre by the copper, and the second by myself, healed without the slightest speck or opacity, or interruption to vision; and it is equally remarkable, that the capsule of the lens was neither cut, nor bursted, nor injured by the copper undulating and repassing over the parts. For so grave and serious an accident, the result was singularly fortunate. Mr. K., jun., has since studied in London, and settled as a general practitioner in Cornwall, where he succeeds well in his profession.

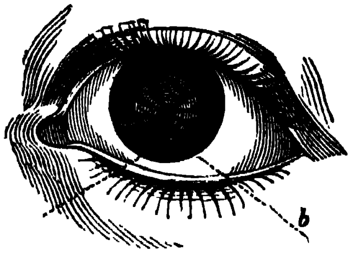
On the 13th of December, 1833, both Mr. K. and his son called on me at my request, and brought the piece of copper, when I was enabled to make the following annexed sketch of it, and also of the eye.

FIG. 1.



Piece of copper magnified two diameters.

Fig. 2.



The eye. *a*, Pupil, elongated downwards. *b*, Black spot whence the copper was removed.

ON THE USE OF THE NITRATE OF SILVER IN SOME INFLAMMATORY AFFECTIONS OF THE MUCOUS MEMBRANES OF THE MOUTH AND FAUCES.

By R. T. Hunt,

Lecturer on Diseases of the Eye at the Pine-street School of Medicine and Surgery, Assistant Surgeon to the Eye Institution, &c. Manchester.

At a time when the exhibition of mercury is recommended in so many complaints, the following account of the treatment of some of the evil consequences which supervene upon the affection of the system, produced by this powerful agent, will not, I trust, be wholly unacceptable. Nor are the bad effects to which I allude dependent merely upon the inordinate use of this remedy; small doses, in some instances, having caused ptyalism, when no such influence on the system was intended by the prescriber. Having frequently observed the great length of time which generally elapsed before ulcerations of the mucous membrane of the mouth, occurring during ptyalism, would yield to the common astringent, or stimulant applications, although assisted by that constitutional treatment which the circumstances of the case appeared to indicate; and having also had numerous opportunities of estimating the comparative advantages of different stimulants, when applied to the mucous surface of the conjunctiva, owing to my connexion with the Eye Institution; I was induced, by the analogy of structure existing between these membranes, to conclude, that the nitrate of silver, which has *proved, after repeated trials, the best stimulant in certain affections of the* conjunctiva, might be resorted to with advantage in similar diseases of the mucous membrane of the *mouth.*

In the first case in which this plan was adopted, the mouth had been only three days affected; there was great tumefaction of the mucous surface of the lips, gums, and inside of the cheeks, which were also suffering from several small sloughy ulcerations; and several quarts of fluid had drained from the mouth during the day. The ulcers were freely touched with the solid nitrate. Next day the swelling had entirely subsided, the sloughs separated, and the salivary secretion was very much diminished. A single repetition, after an interval of two days, was sufficient to restore the affected parts to a healthy state. The constitutional treatment consisted of saline purgatives and diluent beverage. Since that period, I have applied the same remedy, with an equally successful result, in a considerable number of cases, in all of which ulceration had commenced. This effect has indeed occurred so uniformly, as to justify me in recommending the treatment with confidence. The following was one of the most severe affections of this description:—

W. A., a painter, æt. 26, was seized, September 1st, 1832, with all the symptoms of colica pictonum, which yielded, in the course of three days, to the employment of general bleeding, purgatives, and the external application of spt. terebinth. to the abdomen. During this time he took twenty-six grains of calomel, in combination with purgatives, which acted powerfully on the bowels.

3d.—In the evening, his mouth having become slightly affected, he was ordered saline purgatives, and a solution of the nitrate as a lotion.

4th.—As the lotion had discoloured the teeth, the solutio alum. cum tr. capsici was substituted.

5th.—Several small sloughy patches appeared on the inside of both lips, which, together with the gums and cheeks, were much swollen, and the salivary secretion very copious. The nitrate was freely applied to the ulcerated parts of the lips.

6th.—Lips much better; mucous membrane of both cheeks sloughy;

tongue very much enlarged, and covered with sloughy ulceration, preventing, by its size, any ocular examination of the fauces. But reasoning from the difficulty of swallowing, and the pain caused by pressure on the larynx, would lead to the conclusion, that the mucous membranes of the fauces, and upper parts of the pharynx, were in a similar condition. There is now an immense draining of salivary fluid, and such a degree of suffering, that he cannot be prevailed on to take any thing except water and his medicine. Nitrate, applied to the lower surface of the tongue, and inner surface of the cheeks, for the first time, and repeated to the worst lip.

7th.—The nitrate having been too freely applied, and having, consequently, caused considerable pain for some hours afterwards, was not repeated to-day, but he was ordered to use a warm opiate lotion.

8th.—Much better, except the under surface of the tongue, which had not become inflamed until the 6th; swelling and salivary secretion much diminished. Nitrate applied sparingly to the tongue. Opiate lotion continued.

9th.—Improving; no farther occasion for the nitrate.

12th.—To-day I met him walking out. Mouth quite well; salivary secretion natural.

It may be proper to add, that saline purgatives were given daily; and that in both instances the patient was desired not to swallow the saliva after the caustic had been used.

Since the occurrence of these cases, I have followed the same plan of treatment in inflammation of the fauces, accompanied by enlargement of the tonsils; and although in many instances the disease has been of that acute character in which local depletion is invariably adopted, and which frequently terminates in suppuration,—and although the nitrate was applied in the commencement, unassisted by any other local remedy,—the disease was brought to a speedy termination without any formation of pus taking place. I have also tried the caustic in four cases of scarlatina anginosa, in one of which, occurring in a boy, æt. eight years, the tonsils were so much enlarged, that by a single introduction of the pencil, the caustic was applied to both tonsils; and after *one repetition, the swelling subsided. In the others, a single application was* sufficient to produce a favourable result.

I have hitherto principally alluded to the local advantage to be gained by the employment of this remedy, viz. the removal of the inflammatory affection of the mucous membranes connected with the mouth and fauces. But I consider the speedy termination of increased salivary secretion thus produced, a circumstance of equal, or even still greater importance. Instances occasionally occur in which ptyalism continues, in spite of all treatment, whether local or constitutional, for such a length of time, as to reduce the sufferer to a deplorable state of debility, from which he never entirely recovers, although existence may be prolonged for a few years. And in such cases, there is frequently no ulceration, nor even any active inflammation present; or, if in the first instance these circumstances have existed, they are now no longer to be found, the tongue and inner surface of the mouth being only slightly tumid, and the gums spongy. But the salivary glands seem incapable of returning to their natural action; and although the stimulus which caused the inordinate secretion may have been long withdrawn, the habit has been too firmly fixed to be easily eradicated. The draining of saliva continues for months, or even years, producing the lamentable consequences already noticed. The records of pathology also supply us with similar instances, although differently produced. I refer to idiopathic ptyalism—an affection no less obstinate in its course, nor less serious in its effects, than salivation produced by the exhibition of mercury. I have not met with any case of such long-continued affections since I have adopted the method of treatment by nitrate of silver (a period of nearly three years); but a deliberate view of the evidence of its beneficial influence, afforded by those instances in which it has been employed, would, I think, justify a rather sanguine anticipation of its effects in these cases also, in which I should therefore recommend it to be cautiously used.

The manner of employing the nitrate may be collected from the preceding report, with the addition of the following limitations. Should the patient complain of very severe pain, continuing for some hours after the application, this will have arisen from its either having been too freely, or not sufficiently accurately applied. Such being the case, and the disease still continuing, the remedy must not be again resorted to for two or three days. When the ulceration, tumefaction, and salivary secretion, have been considerably lessened by the first application, a repetition may not be necessary; or it will at least be desirable to wait a few days, in which time the affection will frequently have so far subsided as to render the further employment of the nitrate not only useless but decidedly injurious. I have more than once observed the ill effects of persevering too long in this treatment; and I can safely state, that not even the most severe affections will require more than eight or ten applications—seldom so many. The pain is trifling, unless when the application is so freely used as not only to affect the diseased but also the surrounding healthy structures; and there is this variation—that when the tongue, gums, inner surface of the lips, and of the cheeks, are affected, the pain caused by the nitrate is much greater than that produced by its application to the uvula, tonsil, or fauces. In these latter instances the sensation scarcely deserves the name of pain.

These observations are intended to refer to the diseased structures only; for if applied in the same manner to similar parts in a healthy condition, the pain is frequently very acute, the nitrate then acting as an excitant of inflammation, which identical application, in the former instance, produced (however paradoxical it may appear), the subsidence of that inflammation which already existed.

I am fully aware that the nitrate in solution has been frequently recommended in similar affections; but it will be found upon trial to cause as much suffering as when applied in substance; and requiring to be much more frequently repeated, before the desired effect is obtained, constitutes an important objection to this mode of its employment.

OBSERVATIONS
ON THE
VENEREAL DISEASE;

Being an Extract from the Annual Report of Diseases treated in the Hospital of the 72d Regiment, at the Cape of Good Hope, in 1832.

By Thomas Clarke, Esq.

[Communicated by Sir James M'Grigor, Bart., with the Author's permission.]

[Continued from p. 864.]

In the constitutional disease the treatment is as follows, modified according to the degree of intensity of the symptoms:—Venesection, purgatives, antimonials, tepid bath, guaiacum, sarsaparilla; and when mercury is used, it is only in the stage of convalescence, and then in the form of the compound calomel pill. In the ulcerated fauces or tonsils, detergent gargles are employed, or, what I find to be more efficacious generally, the application of the lunar caustic in substance.

In the first case the primary disease was an ulcer on the internal surface of the prepuce, circular and superficial, with slight induration of the edges, and healed without mercury in sixteen days. Two years and a half after, he had another ulcer on the prepuce, of nearly the same character, and which healed without mercury in six days; and fourteen months subsequently to the latter, a papular eruption appeared on the skin, which was removed by the use of purgatives, antimonials, and the tepid bath, in six days. This man is of a vigorous constitution and moderate habits.

The second case had contracted the primary disease four times during the two preceding years, all ulcers on the internal surface of the prepuce, the last of them excavated, with elevated edges, and much indurated. They were healed without mercury; and ten months subsequently he appeared with an extensive pustular eruption from head to foot, and a deep sloughing ulcer in the tonsil. The disease was completely removed by the treatment already specified, without mercury; but the period, including convalescence, was protracted to one hundred and five days. This man is as yet of a healthy constitution, though much addicted to habits of intemperance.

Nine months have elapsed, and the disease has not re-appeared.

The third case appeared at the hospital with an extensive tubercular eruption on the face, chest, and shoulders, with broad livid blotches on the lower extremities. He had been on detachment, where he had contracted an ulcer on the prepuce, which he had cured by his own means, but, as he stated, without the use of mercury. Within a fortnight from the healing of the sore, the eruption broke out. The disease was removed without the use of mercury, in fifty days, leaving a deep discolouration of the skin. Nine months have elapsed, and the disease has not returned; the health is uniformly good, though the skin has not yet recovered its natural colour. Three years and a half previously, he had a primary ulcer, the character of which I had no means of ascertaining, but for the cure of which mercury had been used in a moderate degree, according to his account.

The fourth case was that of a deep sloughing ulcer of the glans, with elevated edges, and great induration. As it shewed no disposition to heal under the non-mercurial treatment, which was persevered in for a period of eighteen days, mercury was employed: he was cured under its use, and dismissed from hospital in thirty-seven days.

Twenty-four days afterwards he returned, with the lower extremities covered with large copper-coloured blotches. He was put upon a course of antimonials and sarsaparilla, and the disease was apparently removed in forty-four days, though the discolouration of the skin remained.

After a lapse of seven weeks he returned again, with a tubercular eruption on the head and face and upper part of the body; the site of the ulcer hard and inflamed; and there was also a considerable degree of constitutional irritation. Antiphlogistic remedies were employed, and a course of antimonials and sarsaparilla recommenced. This treatment was persevered in for the period of eight weeks, when it was presumed that the disease was completely eradicated. However, in the course of three months and a half he returned once more, complaining of pain in his elbows and knees, sore throat and deafness, with a troublesome cough. There was also an extensive white aphthous ulcer on the back of the pharynx; and the whole of the fauces were in a state of inflammation. He is still under treatment; but no mercury has been used subsequently to the cure of the primary disease.

This man's habits were those of extreme intemperance, being slavishly addicted to tobacco as well as spirits; and he attributes the last attack to exposure to cold in the guard-house, when in a state of intoxication. His constitution is now much impaired.

The next case was one of a small superficial ulcer on the external surface of the prepuce, which was healed without mercury in eleven days. A few days afterwards he returned to hospital with gonorrhœa, without, as he stated, having been exposed to a fresh infection. After a lapse of four months he came to hospital, complaining of headache, and shivering, as if he had caught cold; and on examination a papular eruption was discovered all over the body. On the febrile symptoms being reduced, the eruption disappeared. No mercury was used.

The next case was one of bubo, which had not been preceded (if his assertion is to be relied on) by either a primary ulcer or gonorrhœa, although he admitted that he had been exposed to the chance of incurring infection. It suppurated, and healed without the use of mercury; and in four months afterwards he returned to hospital with pains in his joints, and an ulcer in his throat. This disease was also removed without the use of mercury, and seven months have elapsed without any return of it.

The remaining cases, five in number, were primary ulcers, all very nearly of the same character, situated on the internal surface of the prepuce, with more or less induration; and the constitutional disease was a papular eruption, with slight febrile excitement. Both primary and secondary symptoms were removed without the use of mercury; and the period under treatment for the latter averaged five-and-twenty days.

If these cases will warrant any conclusion, it is to my mind in favour of the non-mercurial treatment.

As to "whether all the variety of sores originate from the same virus," I would answer, that I think the same venereal virus is capable of producing sores of various characters; but whether this specific cause is at all times in the same state of virulence, may be a question. I think that it is not; and that it may be varied in its character, and in its influence and effect, by the stage of the disease, and also by the particular state of the general system of the person affected.

It is further my opinion, that the character of the sore produced by the application of this virus, does not by any means depend solely upon any specific difference in its nature, or any particular degree of its concentration; but that, in passing into another system, it becomes subject to a new and a different influence, and consequently that the sore to which it there gives rise may exhibit any character which that other system may at the time have the power of conferring upon it. Something of this kind must take place, otherwise it would be difficult to account for the fact of several men contracting disease from the same source within a few days (I may even say a few hours) of one another, and exhibiting sores of totally different characters. We have every day opportunities of verifying this fact.

In regard to the question—" whether the virus of chancre and gonorrhœa be identical or otherwise," I find more difficulty in giving an answer. The appearance of ulcer and gonorrhœa together, in the same person, is no rare occurrence, and I have ascertained it satisfactorily that they have been contracted from the same source and at the same time; and we have evidence every day to prove that such may also take place in different individuals, one contracting a sore and another a running, from the same person. If, then, we assert the co-existence of two distinct poisons, we must suppose that some persons are susceptible of being affected by the one kind of poison and some by the other; which, in reasoning from analogy, we are perfectly authorized to do, for we know that some persons appear not to be susceptible of being affected by either, but may be exposed to the risk of infection with impunity. But what the laws are which regulate this infection, I do not at all understand. I have observed that one kind of affection prevails more generally at one time than another; but I have not observed that this has been the case at any particular season of the year more than another, nor that it has been influenced by any particular state of constitution prevalent at the time, or by any local circumstance that I have been able to discover. Although we can no longer avail ourselves of the argument for a diversity of poisons—that one requires the use of mercury for its cure, while the other does not, or that one is followed by secondary symptoms, while the other never is—yet, as it has not been satisfactorily proved that the matter of gonorrhœa can produce a chancre capable of propagating its own kind, nor *vice versâ*, and as gonorrhœa has been found to prevail extensively, and for a long period of time, without the appearance of any other venereal affection, we have some grounds for believing that they are not identical, but distinct venereal poisons. But I confess it is a subject of difficulty. With regard to the origin of venereal virus, I have no hesitation in saying that I am of opinion that the virus of gonorrhœa is capable of, and frequently does arise spontaneously; but I doubt very much whether this is ever the case with the virus of chancre.

From my own experience in the treatment of this disease, the question is at rest in my mind as to the necessity of the employment of mercury, being convinced that there is no form of the disease, primary or secondary, that may not be cured without its use.

With all the attention I have been able to bestow on the characters and appearances of the primary affections, which I have had opportunities of observing, I have not found that I could predict, with any thing like an approximation to certainty, whether any one more than another would be followed by secondary symptoms, or of what character these symptoms would be; neither could I say, from the appearance of the secondary symptoms, what the character of the primary affection had been. Certainly the small superficial ulcer without induration, and which heals generally within a period of fifteen days, is less frequently followed by constitutional symptoms than any other; yet it is followed sufficiently often, and by a sufficient variety of appearances, to prove that it is not an exception.

I have never seen but two cases, on which I could rely, of secondary symptoms consequent upon gonorrhœa alone, without some other primary affection having at some time or other existed. These were mild papular eruptions, and very easily removed. As it is not yet ascertained what the utmost limit of time may be which may elapse before the secondary symptoms make their appearance, I should hesitate to ascribe the appearance of these symptoms to gonorrhœa, if I found that any other primary affections had existed within the period of one, or even two years; for instances have occurred to me of the period being extended to the latter, if reliance could be placed on the veracity of the persons.

I have no doubt it will be found, that the average period of time which may elapse in this climate will very far exceed that which ever elapses in Europe. This may perhaps be attributed partly to the influence of climate, and in part to the constitutions and habits of the persons.

It remains only to take notice of a case of this disease, which, occurring in a strumous habit, exhibited a train of cachectic symptoms of great severity, which ultimately proved fatal.

This man was sent on a monthly detachment to an outpost; and a few days after leaving head-quarters an ulcer appeared on the prepuce, which continued to enlarge, and about a fortnight after the appearance of the ulcer, an eruption broke out on his skin; and in this state he presented himself at the hospital on being relieved from detachment, having in the meantime used no medicine whatever.

The ulcer was situated on the prepuce, about the size of a shilling, with deep, irregular surface, discharging a dark-coloured ichor, and very painful; and the constitutional symptoms were a very general eruption of copper-coloured tubercles and blotches, most numerous on the face and lower extremities; a quick pulse, with dry, hot skin, and altogether a great deal of constitutional irritation.

Under the antiphlogistic regimen, and the use of fomentations, poultices, and other local applications, with the free use of opium internally, the severity of the symptoms was mitigated, but the progress of the cure was very slow. At the expiration of six weeks, however, the ulcer was healed, and the tubercles had desquamated, leaving the skin sound but discoloured.

Hitherto no mercury had been used; but it was considered that a small quantity, in conjunction with the other remedies, might now be serviceable in exciting a new action in the constitution, and restoring the general health. Accordingly, five grains of the compound calomel pill were given every other night for three weeks, the antimonials and sarsaparilla being continued.

Every symptom of the disease being removed, and the general health good, he was discharged from hospital. Exactly a fortnight afterwards he returned, complaining of pain in both ears, dizziness in the head, with great deafness, loss of appetite, constipated bowels, and an extensive erythematous inflammation in the fauces. The occurrence of these symptoms he attributed to cold.

Blisters behind the ears, and on the nape of the neck, with issues and detergent gargles, improved the sense of hearing a little; but the sensation of noise and confusion of the head continued; and in the meantime symptoms of pulmonic disease began to manifest themselves, and in a short time assumed the character of phthisis.

The intellectual faculties were now implicated, and he continued in a state of fatuity until dissolution.

The following were the appearances on dissection:—

Cranium.—The sinuses and venous system of the brain generally, were loaded with blood; and serous effusion had taken place to some amount beneath the arachnoid membrane. The substance of the brain, when sliced, exhibited numerous bloody puncta. On opening the left lateral ventricle, very extensive disease presented itself, the whole of the corpus striatum, and the substance of the brain outwards to the dura mater, being converted into a soft, pulpy, dark-coloured mass, much resembling fungus hæmatodes. The structure of the cerebrum and cerebellum in other parts was firm and healthy, and but little fluid existed in the ventricles.

Thorax. — Much serous fluid was found in the pericardium; the heart itself did not appear to be diseased. The left cavity of the chest contained about a quart of serum, having a quantity of gelatinous matter floating in it; the lung being compressed and hepatized. This organ, when cut into at its lower part, exhibited numerous crude tubercles, but in the apex several large vomicæ had formed. The right lung also contained tubercles, but in a much less advanced stage than those found in the left side.

Abdomen.—The liver was enlarged

and granular; and the gall-bladder one-third filled with attenuated bile. The membranous viscera were sound, but the mesenteric glands were extremely diseased; their substance being tubercular, softened in the centre, and containing green-coloured puriform matter.

THOMAS CLARKE,
Surgeon, 72d Regt.

CASE OF DOUBLE UTERUS,

WITH OTHER ANATOMICAL PECULIARITIES.

To the Editor of the Medical Gazette.

SIR,

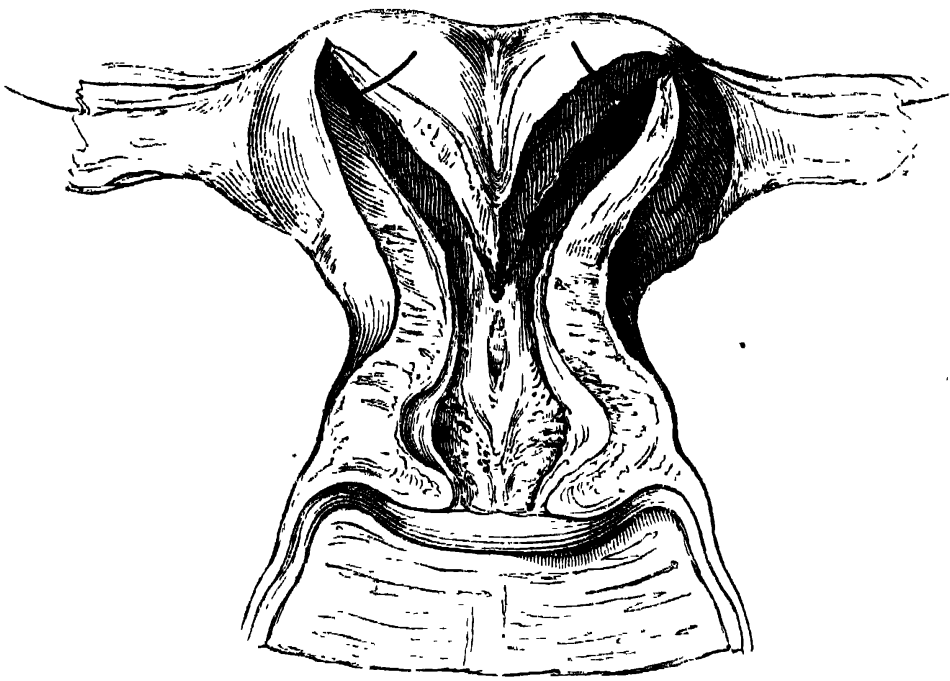
PERHAPS the following case, of a uterus presenting some anatomical peculiarities, may be worth inserting in your valuable journal.—I am, sir,

Your obedient servant,
D. ADAMS,
Student.

Guy's Hospital, March 4, 1834.

A woman, æt. 38, was brought for dissection (under the regulations of the Anatomical Bill), Feb. 11, 1834. The external genitals were in their normal state; and the hymen was remarkably perfect, having an annular opening scarcely sufficient to admit the end of the little finger. The uterus, on its exterior, was divided by an anterior and posterior vertical depression, into symmetrical portions. On making the sections, as represented in the accompanying sketch, the two superior thirds of the cavity were divided by a septum into nearly equal canals, extending outwards and upwards to each cornu, where the fallopian tube terminated as usual, pervious. The neck of the uterus, which occupied about the lower third, presented nothing remarkable, having an opening common to the two canals. The ovaries were unusually large; and in one there was a cyst, containing more than a drachm of jelly-like fluid.

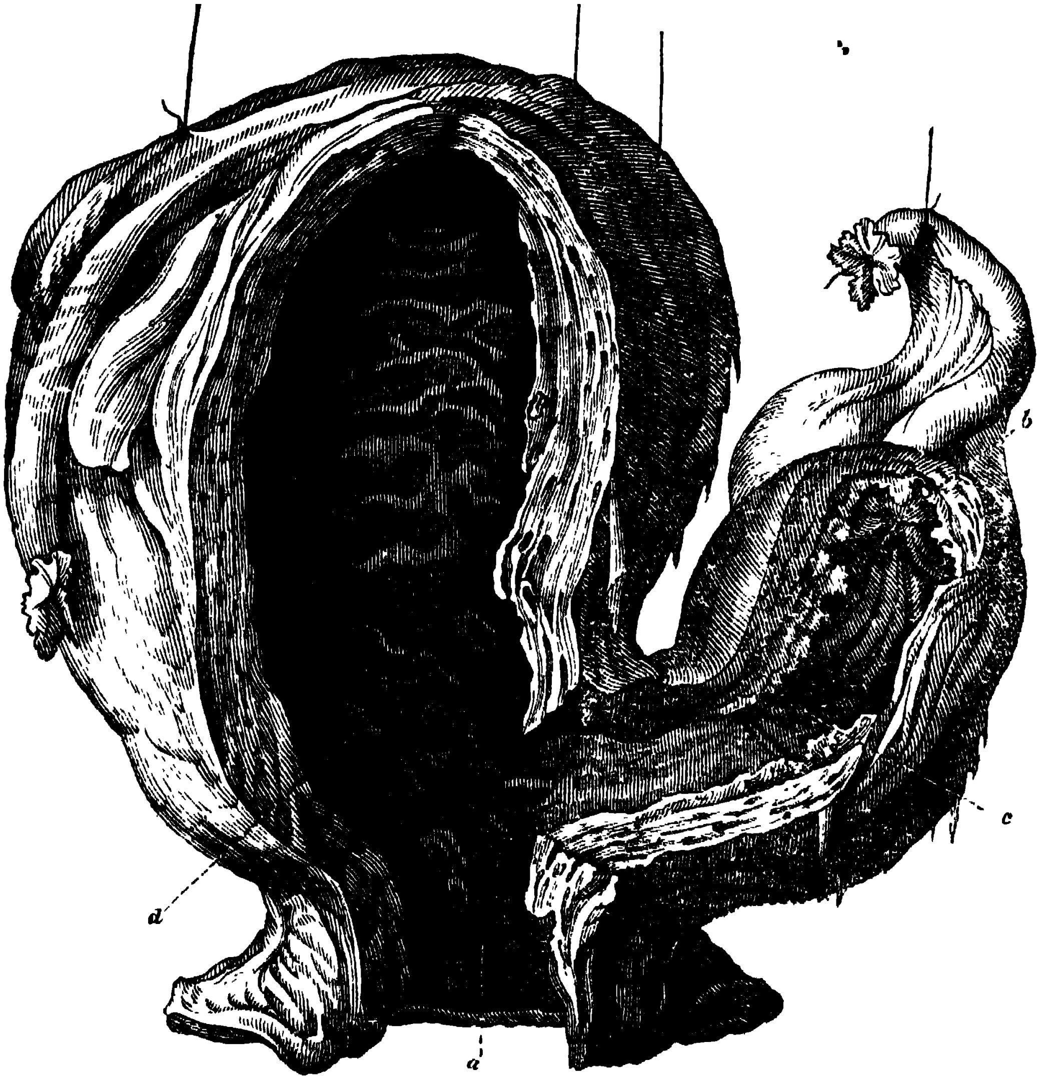
In the same subject were observed two or three other anatomical appearances worthy of being noticed. The whole of the right kidney had been entirely absorbed, leaving only the membranous capsule, enlarged to at least five times its natural size, and containing nearly a pint and a half of coagulable serous fluid, pushing the duodenum and ascending colon forwards. The ureter attached to the inner and lower part of this capsule was completely obstructed by two strictures, between which it contained some fluid, like that in the sac. The left kidney was much enlarged, and its pelvis had begun to assume the cystic form observed on the other side, being sufficiently large to hold one or two ounces of urine. The ureter on this side was somewhat contracted, but did not impede the flow of urine through it. The bladder was large, but healthy.



Length, from os uteri to superior part of the fundus, 3¼ inches. Breadth at its widest part, 3 inches. Length of septum dividing the cavity, 1¾ inches.

DR. LEE'S CASE OF DOUBLE UTERUS.

To the preceding interesting case we append a copy of the engraving which accompanies the history of a double uterus, published in the Medico-Chirurgical Transactions, by Dr. Lee. In the latter instance, the woman died eight days after delivery; and the cornu which had been impregnated contrasted strongly with the other. We gave an account of the paper in November 1832, and now repeat our impression of the engraving, for the benefit of the numerous subscribers who have, since that time, been added to our list.



Explanation of the Woodcut.

a, The cervix uteri.
d The right cornu, which contained the fœtus.
c, The left cornu, lined with deciduous membrane.
b, The orifice of the Fallopian tube open.

AN ESSAY
ON MEDICAL REFORM.
By Dr. Barlow, of Bath.

A parliamentary inquiry into the state of the medical profession being at length happily obtained, the time is arrived when the various speculations, respecting our system of medical polity, which have so long agitated the profession, and which have been so abundantly furnished by the periodic press, require to be collectively viewed, in order to arrive at just conclusions, and to approach some digest of those practical measures of reform which the legislature may safely and beneficially effect. Such a review, however, requires that the principles by which such plans of reform are to be tried should be well understood; else, in attempting reformation, we may only plunge more deeply into error. At such a moment it behoves all who have reflected on the subject, and who have the welfare of the profession at heart, to submit freely whatever views of it they may deem of consequence, or which can furnish any aid or guidance to the Committee of the House of Commons, in the important investigation in which they are engaged. With this view, and with these feelings, are the following remarks, in exposition of a complex question, submitted for consideration.

On a subject so complicated and extensive, on which so much ignorance prevails, and where so many conflicting interests and prejudices are to be reconciled, it is not wonderful that great diversity of opinion has been displayed; and if propositions incongruous and absurd have been urged by the respective parties, with a confidence for which the wisdom evinced affords but very slight ground, such efforts for the attainment of a great public benefit should be regarded not only with indulgence, but, so far as the efforts are concerned, with approval. The good intentions of the parties we have no right to impugn; and their errors of judgment are harmless, because the whole subject must undergo the scrutiny of a tribunal, which will bring to its consideration those principles of sound political science, which the profession itself, in its zeal for reformation, and divided as it is into separate and conflicting interests, would be too apt to overlook.

It may seem strange to make the assertion, but my persuasion is, that the profession itself, as now constituted, is no competent judge of what its political organization ought to be; and that the constitution most suitable and beneficial for it, would be far better adjusted by minds less under the bias of personal feeling, and more imbued with political science, than by any body of the profession. In this I mean not to speak slightingly of the general intelligence or information of my professional brethren, who, I am well convinced, possess, as a body, as much general knowledge, enlightened sagacity, and liberal sentiment, as any other that exists. But it would be difficult to ascertain how the collective body, as represented by the higher intellect and superior cultivation, really judges on the subject; for no means exist by which such a decision could be accurately or distinctly obtained. Circumstanced as the profession has long been, and still is, it affords no facilities for collective deliberation, or for that patient and mature investigation which would lead to conclusions in which all the inquiring parties could concur, each surrendering to the force of reason and of truth those "idols of the mind" by which even the strongest intellects are more or less swayed. We find it consisting of several branches, some originating in legislative enactments of old date, others superadded by the slow but sure operation of public opinion, and public necessities. Each of these has hitherto pursued its own course, regardful only of its own aggrandizement, and reckless of the injuries which its special advancement might inflict on the other departments; while no provision existed for consolidating the whole into a consistent and efficient system of medical polity, or for establishing a general medical council, formed by deputations from the separate incorporations, in which each of these might uphold its special interests, and the whole co-operate harmoniously in all such arrangements as involve the collective interests of the profession, and the well-being of the community.

To the want of some such collective council may be ascribed much of the confusion which has crept into the profession, deranging its organization, and going far to confound all ranks and degrees; and much of the discordancy which so signally marks the reforming projects with which the periodic press has of late teemed. The evil, so far as it is one (for with it in its progress much good has also been conjoined), has sprung from each branch pursuing its own ends, as if no other were in existence, and without reference to the functions performed by the other departments. In this way have arisen errors both of omission and commission, such as could never have occurred if the profession, instead of being intrusted absolutely to separate and independent governments, had in its constitution possessed some means of bringing these

separate governments into collective deliberation, and combined operation, whenever subjects affecting the duties and interests of the whole required it.

The department of physic was under the guardianship of the London College of Physicians; but they limited their fostering care to a small portion only even of physicians, consigning the majority of these to a degraded class, disregarding wholly a large portion besides, and utterly overlooking that numerous class of practitioners from which the physician of the poor was to be supplied.

The College of Surgeons, too, limited their endeavours too much to the business of mere surgery, overlooking the glaring fact, that their licentiates were all obliged to practise physic, and most of them even to combine pharmacy. No provision being made by either College for supplying that most useful member of the profession, now designated the general practitioner, the public very properly, and most beneficially, exercised their all-powerful interposition, by erecting this class; and in despite of all legal enactments and corporate privileges, endowing it with their full confidence and firm support.

Such was the state of the profession when, in 1815, this latter class obtained from Parliament a distinct recognition and legal sanction, by means of the Apothecaries' Act of that year; and although the trust consigned by this Act to the Apothecaries' Company ought to have been undertaken by others, and should never have been suffered to devolve on them, yet to them is due the high praise of having fulfilled it ably and faithfully; and under the circumstances in which it was committed to them, their exercise of it well entitles them to be regarded as public benefactors. This subject must again be adverted to by and by, in more minute detail; I notice it here in order to illustrate the misgovernment of the profession, which has sprung from the want of some presiding general council, which, representing all the departments of the profession, could have guided the legislature aright in their well-meant endeavours to improve its condition.

Ere further legislation be attempted, it is now necessary to take such a comprehensive survey of all that relates to the profession, as shall exhibit clearly and unequivocally, *not only the essential requisites of the medical character, with the gradations which the public accommodation requires, but such adaptation of the profession to the existing state of things, as shall effect a thorough correction of all actual errors and abuses,* without risking by revolutionary changes that good which even the present system embraces, which reason sanctions, and the value of which the slow but sure experience of ages has confirmed.

With this view I shall now use my humble endeavours to lay before my professional brothers the judgment which long and patient consideration of the subject has led me to form; and, for the sake of perspicuity, shall arrange the subject under the following heads, viz.:

I. The essential requisites of the medical character.

II. The arrangement of the profession, which, founded on these essential requisites, would abstractedly be suited for imparting its full benefits to the community in all its gradations; and

III. The adaptation of this arrangement to the state of things actually existent, so as to obtain the greatest amount of good, without unnecessary violation of those established habits and usages, which, while they contribute to sustain the best interests of the science and profession, are so interwoven with the whole of our social system, that to annihilate them would be impossible, even if it were politic to attempt it. This last head will necessarily comprise the investigation, 1st, of how the state of the profession actually existent has arisen; 2d, of the errors and defects which cause its present inefficiency; and, 3d, of the mode in which legislative authority may now interpose, both effectually and safely, to give to the profession a legal organization, suited to the advanced state of medical science, and calculated to promote the well-being and harmony of the profession, and the best interests of the community.

I. *Essential Requisites in the Medical Character.*

This head may be briefly discussed. The unity of medical science is so obvious that few will formally or deliberately deny it. It is incontestible that the practitioner of physic should be acquainted with the principles of surgery, knowledge of them being indispensible in the exercise of his own art; and surgeons should understand physic, not only because their own branch absolutely requires it, but because the larger portion, by far, of the practice of all surgeons, is medical. To the truth so stated, none will object. But it is not to the simple truth that any objection has been taken, but to the misapplication of it in support of revolutionary projects, and of wild schemes for annihilating all distinctions. It does not follow that because the science of physic is one and indivisible, that only one species of practitioner should exist, and that all who practise any branch should be equally qualified and similarly characterized. Neither does it follow that all who so practise should derive their qualification and authority from one source only. If simplification to this extent be the end and aim of the "one faculty scheme," so much discussed of late, I can hardly conceive a design more impracticable, or which, if it were possible to carry it into effect, would be more pernicious. So long as there are gradations in society, must there be distinctions of qualification and rank in the medical profession; and greatly has medical science profited by such distinctions having existed. All practitioners cannot be equally remunerated; the poor cannot pay as liberally as the rich; each class requires an appropriate medical attendant; and to insist on equal elementary qualification from all would be the height of injustice. For the sake of medical science, the standard of professional qualification for those who aspire to the higher distinctions, ought to be a high one; but it would be most unjust to apply it to those practitioners who exercise their functions in a humble sphere, and whose labours must be extensively devoted to those who can pay for little beyond the drugs they consume.

How, then, is this ideal equality to be realized? No one can be so insane as to meditate its accomplishment by reducing the higher standard to the level of the lower. To imagine even a middle point, to which both extremes should approach, would be absurd; for to enforce such a scheme would be still to act most unjustly towards the humbler practitioner, while it would inflict signal injury both on the science and profession, by wantonly lowering the high tone which the literature, science, and varied accomplishments, of the higher classes of practitioners have imparted to the profession. A distinction of ranks, then, is both suitable to our social condition and beneficial to science, while it eminently upholds that respectability in which all classes of the profession participate. In what estimation would the profession now be held if distinctions of rank had not prevailed, and if these very distinctions had not attracted to it the many eminent men whose learning and talents have shed such a lustre over it? Had equality of qualification been legally enforced, such as seems now to be contemplated—had there been no physicians or surgeons, but only general practitioners, issuing indiscriminately from one faculty—can it be for a moment conceived that the profession would ever have attained the social rank it now holds, or have merited the eulogium which has been passed on it by the highest authorities and most competent judges? Dr. Parr's estimate of physicians is on record, and it is a proud distinction to have merited such testimony as he has borne to their intellectual superiority. His words are, "I have long been in the habit of reading on medical subjects, and the great advantage I have derived from this circumstance is, that I have found opportunities for conversation and friendship with a class of men whom, after a long and attentive survey of literary characters, I hold to be the most enlightened professional persons in the whole circle of human arts and sciences." And again: "Of the three liberal professions, I must confess, that, in erudition, in science, in habits of deep and comprehensive thinking, the pre-eminence must, in some degree, be assigned to the physicians." Testimony equally high and explicit is borne in their favour by Blackstone; who, in recommending the study of the law as a branch of general knowledge, thus notices them:—"For the gentlemen of the faculty of physic, I must frankly own that I see no special reason why they in particular should apply themselves to the study of the law, unless in common with other gentlemen, and to complete the character of general and extensive knowledge; a character which their profession, beyond others, has remarkably deserved." It is needless to pursue this argument further. Distinctions of rank and qualification must exist; public exigencies call for them; the advancement of science demands them; and they have been actually established for centuries so firmly that no reforming zeal, however headstrong and reckless, could now supersede them. In their existence there can be no injustice so long as it is not upheld by arbitrary statutes, or exclusive privileges. While all ranks are open to those who seek to enter them, it can be no injury to the lower that the ranks are not utterly confounded with each other, or that pre-eminence should belong to those who earn it at the cost of much time, labour, and expense; and who, in pursuit of it, sacrifice all expectation of early recompense. The unity of physic as a science, therefore, while it should ever be borne in mind in regulating medical education, would be a very unsafe principle for deciding on the degree of qualification which each species of practitioner should possess, or for determining the departments of the profession which the legislature should sanction. These must depend, not on abstract principles, but on the actual wants of the community; and in judging of these, it will be far safer and more rational to follow the sure guidance of facts and experience, than to adopt the speculative notions of any visionaries, however earnest or sincere these may be in advocating their favourite schemes. This brings me to the second head of my subject, which regards "the arrangement of the profession; which, founded on the essential requisites of the medical character, would abstractedly be best suited for imparting its full benefits to the community in all its gradations."

2. *Suitable Arrangement, founded on those Requisites.*

It follows, from the foregoing considerations, that abstractedly the political organization of the profession should be such as to supply to every rank of the community its appropriate species of medical attendant: for the rich, the man of learning and independence, who can afford so to educate himself as to reach the high standard by which his qualifications are tried, and afterwards to subsist himself until the knowledge which he so laboriously acquires comes to be duly appreciated; and for the poorer, the practitioner of humbler and cheaper attainments, who, while he possesses all necessary professional knowledge, so far as his sphere of practice requires it, cannot be expected to comprise the accessory branches of science and literature enjoined to the higher classes, but who, in his proper sphere, is both usefully and honourably employed. Let us now see how far legal provisions and the course of events lend their sanction to the justness of this view.

When a profession of physic was first recognized by law in these realms, some centuries ago, physicians alone constituted it. Here was "one faculty," yet it grievously failed to accomplish the ends of its institution. This was so far back as the commencement of the sixteenth century; and so long were the class of practitioners most needed by the public in struggling into acknowledged existence, that not until the eighteenth century were the surgeons separated from their colleagues, the barbers. Here, then, both the course of events and legal enactments, provided, not for consolidation of ranks in physic, but for their division, and great has been the advantage of the extension thus effected. But more remained to be done. Physicians were presumed to practise physic exclusively, and surgeons, however they might practise physic, had not the boldness to avow it. A want still existed, and was seriously felt. The surgeons supplied it, in a certain degree, by practising physic as extensively as they could; yet, restricted as they were by the popular notions, which long prevailed, notwithstanding the popular practice of employing surgeons as physicians was at variance with the notions, they did not suffice, and the apothecaries insensibly glided into both medical and surgical practice. A further want sprung up, and it proved that not only were surgeons obliged by the public necessities to practise physic, but many of them found it necessary to dispense medicines also.

This necessity of combining pharmacy with the practice of physic and surgery was long overlooked, or disregarded: the physicians utterly interdicted all such combination; the surgeons were compelled to admit, while they despised it. Still the general practitioner, or he who combines, in his own person, the several branches of physic, surgery, and pharmacy, was making silent but rapid way, in despite equally of long-founded prejudices and of collegiate ordinances, until, in 1815, this branch had acquired so much importance, and assumed so prominent a station, as to obtain from the legislature a distinct recognition of their claims, and the willing grant of a special state of incorporation, with ample powers to improve, to the utmost, the qualification of their members. This statute, as creating a class of practitioners in physic, might have placed these under the guardianship of the College of Physicians; but this body stood too high in its own estimation to undertake the humble but most useful office.[*] It might have been assigned to the College of Surgeons, but they too disdained it, from a lurking pride, which would not suffer them to acknowledge any connexion of their art with the despised branch of pharmacy. Not only did they thus forego the supply of general practitioners, which they might at that period have readily secured, but with a supineness most extraordinary and most culpable, they suffered to be wrested from them, without a murmur of remonstrance, the privilege previously enjoyed by their own licentiates, of combining pharmacy with their other functions,—it being distinctly enacted by the Apothecaries' statute of 1815, that from the passing of that act, no one should practise pharmacy unless he actually possessed the license of the Apothecaries' Company; which license could only be obtained through a few years' apprenticeship, and a course of education distinct from that enjoyed by the College of Surgeons, no reservation being made of the rights previously enjoyed by the surgeons. In consequence, since 1815, all young men intending to become general practitioners, (and it is the only line in which the great majority have a chance of earning a subsistence) have been compelled to undergo a double qualification, by becoming members both of the College of Surgeons and of the Apothecaries' Company,—an obligation at once unprofitable and vexatious. The diploma of the College of Surgeons is sought for, because public opinion still attaches value to it; the license of the Apothecaries' Company is obtained, because without it their surgical diploma would not entitle them to engage in that line of practice in which alone they can hope to find employment. But this state of things will not long endure. It will in time,—and that at no distant date,—be discovered, that the Apothecaries' license gives a full and sufficient legal authority to practise in every branch;—that it alone does so;—that the surgical diploma is in fact superfluous for practitioners of this class; and, in consequence, the Apothecaries' Company must, if the present organization of the profession were to continue, absorb, eventually, the whole general medical practice of the kingdom. I have dwelt the longer on the progress by which a class of general practitioners has been called into existence, because it illustrates forcibly the natural tendencies of the profession, and is directly opposed to the scheme of consolidation, which would have all practitioners emanate from one faculty, professed to be equal in qualification, and undistinguishable by rank or denomination.

The public necessities called into existence the class of general practitioners; the legislature has sanctioned them by its fiat; the Colleges, both of Physicians and Surgeons, spurned the despised office of superintending the qualifications and practice of this class; and this most important trust devolved on the apothecaries, who readily undertook it. And they were right in doing so; and faithfully, diligently, and judiciously, have they hitherto fulfilled it. If any impropriety attaches to its having been so confided, no portion of the blame rests with them; on the contrary, every praise is due to them for the zeal and ability with which they have laboured to render the class of practitioners qualified by them worthy of the legal sanction and protection which the statute confers.

It appears, then, that instead of one faculty,—of which alone the profession of physic consisted in the sixteenth century, there have sprung up in addition, by the uncontrollable influence of the public will, not only a numerous class of surgeons, practising physic extensively, but a further class, who practise physic, surgery, and pharmacy, now designated as general practitioners. In this progress, we see little to sanction the scheme of consolidation, of which so many speculatists seem now enamoured. By any sound intellect the conclusion deduced from such premises would be, not that consolidation of ranks was indicated, but precisely the reverse.

And thus we reach the third and last head of this inquiry—namely, the adaptation of the arrangement, abstractedly most suitable, to the state of things actually existent, so as to obtain the greatest amount of good, without unnecessary violation of those habits and usages which, while they contribute to sustain the best interests of the science and profession, are so interwoven with the whole of our social condition, that to annihilate them would be impracticable, even if it were politic to attempt it.

[To be continued.]

CONNEXION BETWEEN MEDICINE AND PHARMACY.

To the Editor of the Medical Gazette.

Sir,

I am induced to lay before you some reflections which occurred to me on perusing your editorial article of the 18th ultimo.

In that article it is inferred, that, desirable as it may be, and indeed is, to sever the "unhallowed connexion between practice and pharmacy*," popular prejudice would only render such an attempt ruinous to the general practitioner.

Perhaps it may not be considered presumptuous, in one who has exercised both modes of practice, to offer his reasons for arriving at a different conclusion.

It is well known that the dispensing chemist sends out his medicines at a far lower rate than the apothecary; nor does the patient stop to reflect upon the fact, that the multiplied small profit of the former makes a better return than the apparently high charge of the latter, who dispenses only the prescriptions of his immediate friends: it is enough for him to know that a mixture, containing six draughts, which he procures for eighteen pence, is far more palatable than the old fashioned six draughts at nine shillings; nay, I may assert that the apothecary's charge for medicines, even where it includes attendance, is too often compared with the charge of the trading chemist, as though professional skill, acquired at much expense by years of study, and matured by years of observation, were unworthy of reward. I will refrain from inquiring how far, and in what manner, the physician himself has induced this state of things, believing, as I do most firmly, that the acquirements now demanded in the general practitioner must, of themselves, sooner or later, lead to a total change in the old mode of practice.

A moderate fee for attendance (varying with the rank of the patient, and possibly with the standing of the practitioner), is as easily charged at the year's end as eighteen pence for a draught; and surely, if it be not already claimable, it may be made so. The dispensing chemist, whose business would hereby be much enlarged, should charge *only* a trade profit on his preparations; and thus, while the expenses of illness would certainly not be increased, the sick man's stomach would be spared many a nauseous dose, which, under the old plan, must be made to appear on the Christmas bill.

Let me not, however, be misunderstood, as advocating the "one faculty," or any other system of universal equality: the practitioner who acts on the plan I have advocated and adopted, becomes neither more able, nor less responsible, than heretofore; and he will be as desirous as ever to seek, in all cases of danger or difficulty, a more experienced opinion than his own. That the public are not competent judges of medical skill is sufficiently proved in the success of Mr. St. John Long, and other empirics of the day. Let honourable distinctions, then, be made by competent tribunals, and let the rank of the general practitioner be commensurate with the liberality of his education and the extent of his skill. The physician, in title only, will then sink into insignificance, whilst the man of acknowledged talent will be sought out by his brethren; and, resting his character on medical opinion (the only honourable foundation for medical fame), he will attain an eminence which may be envied by all, but can be gained by the few only.

I am, sir,
Your constant reader, and already
obliged servant,
John Prichard.

Leamington, Feb. 18, 1834.

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* *Non noster hic sermo*—the *unhallowed* part of the phrase, at least, belongs exclusively to Dr. James Johnson.—Ed. Gaz.

SKETCHES OF THE PRESENT STATE AND FEELINGS

OF THE

MEDICAL PROFESSION IN THE PROVINCES,

And more especially in Liverpool;

WITH OBSERVATIONS,

By James Collins, M.D.

In a previous communication, I have endeavoured to delineate some of the shades and differences in the opinions and sentiments of our medical reformers here;—I have shewn how they are broken into little petty knots and cabals, each in its little sphere affecting to despise the others, and all endeavouring, amidst the general commotion, to advance their own individual interest, without much sympathy or sincerity for that of others:—in this I wish to convey some notions of the actual state of the practice of medicine among us. Few but those who witness it can comprehend its low and prostrate position, and the causes that have contributed to it. But I must first direct attention to one or two features in the Liverpool petition, that seem to me peculiarly deserving of consideration and support. Some little time ago, a general meeting of the profession was convened here, and a petition to the House of Commons was adopted, merely praying for the appointment of a committee to inquire into the state of the medical and surgical profession. As Mr. Warburton's motion to that effect has been conceded, it is probable that the Liverpool petition may not be presented; at least, if it should be, it will seem somewhat strange to pray for the appointment of what is already appointed. However, be that as it may, there are some points in it of peculiar interest. In it they have pointed out some of the anomalies of the existing laws, but have carefully abstained from pressing on the attention of the legislature any particular panacea or nostrum of their own; such as the fusion of all ranks and denominations of medical men into one, or the unmeaning and indefinite jargon of "one faculty—all doctors, and no surgeons:" they have only sought for an assimilation of the medical laws and education in Great Britain and Ireland, leaving it to the good sense of parliament what that change ought to be, and by what means effected or enforced. For as things are managed now, the rights, privileges, and education of medical men, seem to depend as much on latitude and longitude, as on any fixed or equitable principle. those of Scotland differing from those of England and Ireland, and all from one another; the right of prescribing in Dublin by no means implying it in London or Edinburgh, or *vice versâ*.

One clause they have inserted, particularly deserving the countenance and sanction of the profession, namely, that physicians should have a legal right to remuneration for attendance. The want of such a law is particularly felt in this part of the country, and is the source of great and frequent injustice, enabling people of wealth and rank, but without principle or shame, to take our advice and services without paying for them. The barrister is paid before he gives his advice; the physician is compelled, by etiquette and usage, to give his first, and then to trust to the honour of the patients, or their friends, for the pay. There is no parallel between them in this respect: and none but persons acquainted with this part of the country could or would believe the advantage taken every day of this want of legal redress by the patients themselves, or their executors. and by the assignees of bankrupt estates. So sensible of this are the medical men here of every denomination, that there was not one dissentient voice at the meeting on its justice and policy; and as it is one of great importance—to us, at least, in this quarter—I trust I may be allowed, in the Medical Gazette, to direct attention to it from other and more influential sources. "The days of chivalry are gone:" people will not pay if they can avoid it; and they have always been governed more by law than sentiment or morals. Why, then, should the physician be made to depend more on the caprice or contingency of the latter, without the protection of the former? Yet so it is.

Here, as every where else, we swarm with medical men. The great and increasing commerce of the town, the mixed and various ingredients of its population, consisting of Turks, Jews, and Gentiles, from all parts, attract them at all seasons, and from all quarters. We stand, as it were, in the high road to all parts. There are few at home or abroad who have not some friend or connexion, or facility of introduction here; and hence, as might be anticipated, there is a greater mixture and variety of medical men here, of foreign and domestic growth, than is, perhaps, to be found any where else. Like the inhabitants, they are of all sorts, and of all places. Hence the competition for practice is great, and the ways and means to attain it often as ingenious as disreputable. In a population of about two hundred thousand, comprising that of the town and its immediate vicinity, there are from two to three hundred medical men, of one sort or another, competitors for practice. They are all usually denominated " doctors," the public paying very little regard, in this respect, to college or university distinctions. The chemists and druggists are even beginning to assume and receive this appellation. About nineteen-twentieths are general practitioners, surgeons, or apothecaries, and many of them neither one nor the other,—the law allowing any man to stick surgeon or doctor, or accoucheur, or dentist, upon his door, and to practise all or any as he pleases. It is only when the patient is killed, maimed, or in some degree injured through his ignorance or bad practice, that a prosecution may be commenced, or that the law takes cognizance of him; and then there are so many loop-holes of escape, that it is often impossible to catch or punish him for doing so.

This anomaly and defect in our medical legislation is the cause of great injury to the regularly-educated members of the profession. So many of these illegitimate sons of Esculapius have succeeded to practice and wealth here, that they live in the best streets, keep the most expensive establishments, and turn out in such style and equipage that the first physicians and surgeons of the town are on terms of friendship and intimacy with them: they are daily in the habit of meeting them in consultation, and glad, indeed, to have the opportunity of doing so. Here, men that would be scouted elsewhere, who have neither degrees nor right to practise, are met, cherished, and upheld by what are termed the *tops* of the profession. Thus all land marks between legitimate and illegitimate practitioners are destroyed. There is no such thing ever known here as refusing to meet a man who has no degree or license to practise, unless the parties are on bad terms, or have a personal dislike to each other. One could scarcely believe the extent to which this degrading practice is carried. It is so common, that no one ever questions or feels its impropriety. It removes all distinctions between the educated and uneducated, and thereby narrows the sphere and chances of practice of those who have been regularly introduced into the profession.

Another very peculiar custom prevails here: physicians, surgeons, and apothecaries, all send in their bills. There is scarcely any such thing as paying either during or at the close of his attendance; it matters not, in this respect, whether he comes in as consulting physician or surgeon, or as the ordinary attendant of the family; he is obliged, like the regular tradesman, to send in his bill at Christmas or Midsummer; and perhaps when he does, the parties who employed him are dead, bankrupt, or fled, or refuse to pay him altogether. Indeed, so general is it here to pay medical men but once or twice a year, that the first merchants of the town often take or affect offence if dunned or solicited sooner for payment. Many allow their bills to run on for years, not wishing to offend or lose the connexion, and in the end often get nothing, through the insolvency and dishonesty of the parties. Some of the physicians collect their own debts; call at the offices or houses of the patients day after day for this purpose: many have the appearance of visiting the sick, when they are only on their dunning excursions. Others, again, keep what they term " a collector," who gets so much per cent. on the debts he collects: he knocks at the door, or goes to the counting-house; shews his credentials authorising him to collect for Doctor so and so, and then asks for the amount. In nine cases out of ten, he is sent away with the answer " call again, the cash-keeper is out; or, the Doctor's bill is exorbitant; I will not pay it: Doctor so and so, when he attended me, only charged such and such sum." And the result is, as might be anticipated, that there are few medical men here, of any standing or practice, who have not on their books hundreds and often thousands of pounds of bad debts. The late Dr. M'Cartney is said to have left, in this way, some thousands at his death. The late Mr. Park had nearly twenty thousand pounds due to him when he died. The present learned Professor of Medical Jurisprudence, in the University of Edinburgh, though not in the most extensive practice when he resided here, had more than twelve hundred pounds due to him when he left Liverpool. Those I name because they are either dead or removed from us; others I could name, living among us, whose debts are still more significant of the impropriety of this system. Thus every thing assumes the character of a regular commercial transaction, and thus we are reduced to the condition of tradesmen, without their legal protection in the recovery of our debts; and hence so many medical men become insolvent or bankrupt here, and hence so many die among us without being worth one shilling from their practice, and leave so often their families in poverty and distress, though for years apparently in the most extensive and lucrative practice.

We differ also from most places as to the charges of our medical men. In this respect the greatest latitude and variety prevails. The fees of surgeons range from one shilling to five; some are very glad to charge only for their medicine. The charges of physicians are comparatively as low: they average from three to seven. Indeed there is no fixed or regular scale. The principle implied and acted on, is, to get and take what one can,—every one for himself, and God for us all. Some years ago, a meeting of the physicians was convened, to adopt some fixed and regular scale: it was there agreed that the first visit should be one guinea, and every two or three subsequent ones another. Yet but a few weeks elapsed before they broke through their own solemn and deliberate act; and, what is strange, is, that it was the junior medical men who adhered to the letter and spirit, whilst it was the very heads of the profession, the very persons who convened the meeting, that first exhibited their disregard of their own scale: one of them, a Scotchman, then at the top of his profession, and since dead, when charged with not abiding by the rules, is said to have replied, "What, mon! do you think that if I canna get seven, that I will not take twa shillings?" Since we take what we can get, enter into the most *cutting* and commercial competition with one another, bating one another down by our low charges, and thereby ruining ourselves and the general practitioner, there is no town where we are worse paid; and the fault is our own. What can one expect, when the first physicians, men of large private fortune, and most extensive consulting practice, some of them graduates of the English Universities—men who, from their position, wealth, and standing in society, might get what they please—what, I repeat, can one expect when such men charge only seven shillings a visit for consultations, and some of them a great deal less? The veterinary surgeon will not attend a horse or a cow without five shillings a visit; the porter will scarcely run across the street, or carry a message, for less than one or two. Some physicians, and those even attached to public institutions, attend on all occasions here, whole families, for four or five pounds a year each; others, again, attend the families of the directors and managers of theatres, merely for a ticket for themselves or their families to go to the play when they please. These contracts are usually reduced to writing, or made in the presence of a third party; and what seems almost incredible, is, that some of those who enter into them keep their carriages, and are men of large and dashing fortunes.

It is true, there are one or two—and only one or two—and those neither in the first-rate practice, who charge ten shillings a visit; they are the exception, and not the rule; and had others done the same, they could as easily get ten, as seven, or three; it only requires unanimity, and adherence to some fixed and definite scale. At present every one gets what he can, undersells his neighbour, and hence we are estimated like other goods, by the prices in the market. People will refuse to pay dearly when they can buy cheaply; and what is the result of this want of union and co-operation among medical men, of their mutual jealousies, competition, and low charges, but general poverty and want, except where private means exist to support them! There is no class in the community here, in which there are not men every day dying possessed of great wealth from the accumulations of the profits of trade and business: merchants, tradesmen, brokers, attorneys, &c. frequently retire with a fortune after a few years of business, or raise themselves and their families from comparative obscurity and indigence, to wealth and station in society; but no such instances occur in the medical profession, but the very reverse; yet young men are every day crowding into it, with such prospects before them, and lecturers are every day haranguing them on its dignity and etiquette, notwithstanding the evidence of their senses to the contrary. They would do a great deal more good to them, though not to themselves, in cautioning them against the step they were about to take, if they wished to be repaid by their profession for their time and expense. A few good lectures at the opening or closing of our medical schools, to this effect, would have all the characteristics of novelty and disinterestedness, and do much more good than all the flummery and false glare of the pictures they draw in their usual discourses. There is no *esprit de corps*, or union, among us, for mutual interest and protection; we calumniate, undermine, and undersell one another, instead of making common cause, as churchmen and others would do in similar circumstances. By this all suffer, and none gain. The medical men attached to the public institutions are often at variance with each other; those of the Dispensaries arrayed against those of the Infirmary, Town Hospital, and Workhouse; each often viewing the other with distrust and superciliousness. But I must reserve this and other matters for my next. I wish merely to exhibit, without colouring or exaggeration, our position here, in the hopes of awakening better feeling, and a juster sense of what we owe ourselves and the profession.

Liverpool, Feb. 26, 1834.

QUALIFICATIONS FOR DIPLOMAS —THE PRESENT CERTIFICATE SYSTEM.

To the Editor of the Medical Gazette.

SIR,

THE medical public is indebted to your pages for many valuable observations on the improvements that might be effected in the profession generally, and also on those which are indispensably required in medical education.

There is an evil connected with the existing system which appears to have escaped your notice, and to which I beg leave to direct your attention; it is with reference to the qualifications at present demanded by the several public bodies, before a candidate can be admitted to an examination before them.

To obtain an examination for a degree, diploma, or license, the student finds that the attainment of two things is necessary: first, of certificates testifying that he has attended certain courses of lectures; and secondly, of a certain quantum of knowledge, the *necessary* amount of which it is not easy to estimate.

Without the possession of the certificates the candidate cannot be admitted to an examination, inasmuch as the object of them is to afford evidence that he has had certain opportunities of acquiring information; it being tacitly admitted, as it ought to be, that an examination alone is an insufficient test of the qualifications of a candidate for the practical duties of medicine or surgery. These certificates have no reference (or at best a very vague one) to the extent to, or the manner in, which their possessor availed himself of the opportunities he enjoyed; they merely attest his having possessed them; stating that he had been *personally present* at a certain number of lectures delivered during a particular season, which is the literal interpretation of the certificate phrase. "Mr. —— has attended a course of lectures," &c. I believe no lecturer will venture to pronounce upon the degree of *mental* attention of any member of his class with such certainty as to feel satisfied that he does not merit a certificate. There are a few flagrant cases that may be easily decided upon; but I think most persons will agree with me, that these are but few; it therefore appears to be the justest interpretation of the word "attend,"—"*to be personally present.*" How little, then, can be inferred as to the general qualifications of a student, from his having obtained any number of such certificates! Yet such is the evidence of medical education required by our public bodies, whether they be entitled to confer degree, diploma, or license.

The effects of this system on the students at the great schools of these kingdoms, will be found to depend very much upon the nature of the final examination. The laxity or strictness of that examination will exert a direct influence upon the whole tenor of the student's career. Those branches of medical science which form the subject matter of the final examination, will receive the principal share of attention; but those which do not enter into it will be totally, or in great part, neglected, although they may be of great value and utility to the practitioner. There are two branches in particular, which, I think I am justified in saying, at present receive little or no attention from the great body of the students in this metropolis, and which, therefore, serve to illustrate my remarks; they are, first, morbid anatomy, without a correct knowledge of which, the practitioner is, to say the least, incapacitated from contributing his mite to the treasury of medical facts; and, secondly, forensic medicine, a branch of science which is every day taking a more exalted station, and through ignorance of which many a practitioner has injured himself almost irretrievably.

In proposing a remedy for an evil which is productive of such, and perhaps worse consequences, I shall take it for granted that degrees, diplomas, or licenses, will still continue to be granted by some body, or bodies, authorized by law; that the system of instruction by oral lectures will continue—for I can see no other system which can be made so beneficial; and that evidence of having conformed to a certain plan of education, will continue to be tendered to the said body, in the form of certificates. My proposition is simply, to make it a condition necessary in order to obtain a certificate of attendance on any given course of lectures, that the individual requiring such certificate shall have passed one or more examinations, during the continuance, or at the conclusion of that course. Thus, supposing that for a certain diploma it is required that the candidate should produce a certificate of attendance on two courses of the practice of medicine, the possession of them will, under the proposed system, imply that he has passed a certain number of examinations to the satisfaction of his lecturer.

To obviate certain objections which obviously may be started against this plan, it would be necessary to go further into detail than my present space will permit. Were it so arranged as that the several organized schools should constitute the colleges of a metropolitan university, this plan might be fully carried into effect, and the whole outline of medical education assimilated to the present system of general education at the English Universities. It would tend very much to create a spirit of proper emulation among the schools, and with the most solid object—that of sending out the best-instructed students; and it would have the beneficial effect of extinguishing the *ad captandum* system, which prevails to so lamentable an extent in the present day.

I have the honour to be, sir,
Your obedient servant,
R. B. Todd, M.D.

5, Hart-street, Bloomsbury,
March 10, 1834.

SIR CHARLES BELL'S VIEWS OF THE NERVOUS SYSTEM.

To the Editor of the Medical Gazette

Sir,

In the last number of your journal, there is a letter bearing the title, "Sir Charles Bell's Doctrine," wherein the writer professes to oppose, under this general expression, what can only be regarded as a part of that gentleman's opinions. After speaking, in a somewhat imposing tone, of "statements of facts," yet without presenting a single circumstance that can be construed into a fact, but deserves only the name of *assertion*, he concludes—"if such be the facts, Sir Charles Bell's doctrine is unfounded."

The whole subject, thus summarily dismissed, is treated so shortly, being in the compass of three or four lines, that it is difficult to understand what is the precise theory or system to which he refers; but the reader is left to suppose, that Sir Charles Bell's "doctrine" consists in the opinions which he has delivered about the nerves of respiration; for these, and the middle column of the spinal marrow, are alone alluded to.

The principle, however, as I would prefer calling it, which Sir Charles Bell has maintained from the beginning, is very different, and far more extensive. It is, that nerves which arise by distinct origins are endowed with distinct and appropriate functions; and that it is the variety in the functions which the organs of the body have to maintain, that is the cause of the complexity of the nerves. Thus it is his opinion, as the most simple example, that when a nerve arises by a single root, it is possessed solely of one kind of nervous property. In proof of this, the portio dura of the seventh pair, or the ninth nerve, has only one root, and it accordingly is endowed with only one function, viz. that of bestowing motion. If a part of the body has both sensation and motion, it receives these two properties through the medium of distinct nerves, or nerves arising by two distinct roots. The fifth pair has a double origin, and it has, on that account, two separate functions. The greater root, which possesses the ganglion, and is distributed to all the cavities and surfaces of the head, bestows sensation alone; while the lesser root, which passes free of the ganglion, and is confined in its distribution to a small class of muscles—those of mastication—confers motion alone. The thirty spinal nerves are illustrations of the correctness of the same principle; they are all similar in character to the fifth pair; that is, the ganglionic, or posterior root, bestows sensation alone, and the anterior root bestows motion alone; and when the distinct roots are united, the nerve has compound properties.

But when we have advanced thus far, a problem next presents itself—What is the meaning of the remarkable intricacy of the nerves in certain parts of the frame? Why should the brain and spinal marrow be formed into numerous subdivisions, and tracts of nervous matter? and why should the nerves proceeding from these distinct parts cross each other to reach their destinations, or crowd together, from various sources, to supply the same organ, or exhibit such a complicated interlacing of their fibres? If we have ascertained that the particular nerves, where they arise immediately from the brain, and before they have become united with others, are either destined for motion, or for sensation (whichever it may be), we have made a great step in the inquiry; but we have not removed half of the difficulties. Before we can know accurately the peculiar kind of motion, or kind of sensation, which is enjoyed by one nerve in contrast with another, or solve the question why this nerve should be connected, in the particular manner which we find that it is, with others, it is necessary that we be perfectly acquainted with the nature of the actions performed by the muscles to which it is distributed, or with the peculiar sensibilities of the part. That appears a simple thing to accomplish; but the concatenated motions in the orbit, face, throat, windpipe, thorax, are of the most difficult kind to analyse and distinguish: and yet, until we have an exact knowledge of the complicated actions carried on in all these parts, and the sympathies by which they are connected, we may despair of possessing definite notions as to the functions of the individual nerves, which are especially intricate in these organs, or as to the subdivisions of the brain or spinal marrow, from which the nerves come.

Thus it has obviously been the complex distribution of the nerves in their course which has been the cause of Sir Charles Bell's devoting so much attention to the functions of the muscles of the orbit, the muscles of the face, the muscles of the neck and thorax. It has been his aim, apparently, to reconcile the intricacy of the nerves, and the seeming irregularity of their organs, with the multifarious functions which have to be regulated by nerves. While making this attempt, there has been no part of the frame which has not been brought more accurately under our knowledge, from the investigations which he has been led to make into its varied actions, with the view of discovering why the nerves should be so peculiarly distributed. If he has not succeeded as yet, in the estimation of your correspondent, it does not appear to be the fault of the principle which he has assumed; but it must be owing rather to the extent and difficulty of the inquiry. Before, however, any one pronounces with "S. Y." that "Sir Charles Bell's doctrine is unfounded," it is fair to require from him that he will likewise go over the whole subject fully; that he will examine with care the nature of the functions of the several organs to which the nerves are distributed, and by analysing them, present a classification which can be preferred.

Allusion is made by your correspondent to the account of Sir Charles Bell's opinions, which you have extracted from his "System of Anatomy" into your pages, as if that were the only source of his knowledge. He should be informed, that these extracts, and even all that is contained in the System of Anatomy, present only a condensed and limited view of these questions; and that to understand the whole subject perfectly, he ought to have consulted the author's last publication — his quarto work on the "Nervous System."

I have the honour to be,
Your obedient servant,
S.

March 10, 1834.

SOME REMARKS ON

DR. PROUT'S BRIDGEWATER TREATISE.

To the Editor of the Medical Gazette.

SIR,

IT would perhaps have been as well if Dr. Prout had not, in his Bridgewater Treatise, again brought on the carpet the subject of a late discussion. As, however, he has chosen to do so in his usual style, in the following passage, I feel myself called upon to make a few observations on this his second attempt to explain the process of digestion. I may observe, in passing, that it does not exactly appear why, in this Treatise, he should have encroached on the department of another gentleman, so eminently qualified for the task, appointed to treat the physiological part of the subject, and thus given to his Treatise the incongruous title "Chemistry, Meteorology, and the Function of Digestion."

In page 512, he observes—

"We dwell on this point the more, because, from deficient recollection of what electricity is, and what are the living powers acting through the nervous system of animals, it has been maintained, nay, has even been endeavoured to be experimentally proved, that these nervous powers are identical with the powers of electricity. It is impossible to imagine a greater fallacy. Admitting that electricity, properly directed, could change the proximate elements of the food into those of chyle, can we imagine this principle to vary spontaneously its mode of operation, so as to produce the same chyle from every sort of aliment*—that electricity is an intelligent agency, acting with a certain object? Besides, if the nervous agency be identical with electricity, how different must be its functions in different nerves; in one nerve, for example, digesting and assimilating the food; in another, conveying sight; in a third, conveying sound, in the brain itself shall we say actually thinking! As to the experiments on which it has been attempted to rear this untenable opinion, they prove nothing whatever, and are easily explained on other principles." But here, according to Dr. Prout's usual method, he considers the assertion sufficient, and adds, "Such explanation would be foreign to our present object, were we to introduce it here."

The facts ascertained by the experiments Dr. Prout here refers to, are—1, that the nervous influence is capable of passing through other conductors than the nerves, it having been shewn that it is more or less capable of its functions after having passed through a space of not less than a quarter of an inch between the divided ends of the nerves which convey it; 2, that when the stomach is deprived of any considerable part of its nervous power, whether that supplied by the brain or spinal marrow, it is no longer capable of secreting the gastric juice; 3, that when the lungs are in like manner in either way so deprived, they in a few hours not only become incapable of their functions, but their structure, being more evident than that of the stomach, in many parts is sensibly and wholly changed; and, lastly, that if under such circumstances voltaic electricity of a certain power be sent through the stomach and lungs by the lower portions of the divided nerves, as soon as the division of the nerves is made, and the upper portion displaced, the secretion of gastric juice, and the function as well as structure of the lungs, continue as perfect as when their nervous influence is entire.

It is a pity that Dr. Prout did not give his explanation; because, as he does not call in question the results of the experiments, the reader, I think, must have some curiosity to know how he makes the application of the observation just quoted—namely, "that they prove nothing whatever, and can easily be explained on other principles than that of galvanism performing the function of the nervous influence."

I think it will be admitted, after due

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* So confused are Dr. Prout's ideas on the subject, that he does not perceive that it is in the formation of the gastric juice that voltaic electricity performs the function of the nervous influence in the living stomach. The conversion of the food depends on the operation of the gastric juice itself. Neither the nervous influence, nor voltaic electricity, act on the food.

consideration, that it would be difficult to find a passage in any treatise, which betrays a greater want of knowledge, and consequent confusion of ideas, respecting the subject it treats of, than that just quoted from Dr. Prout's publication. He here not only confounds together the sensorial and nervous powers, but both with the vital principle; and ascribes to those he censures the confusion which exists only in his own mind. By whom has it been asserted that any of the sensorial functions can be performed by voltaic electricity, or that it can maintain any of the nervous functions when the vital principle is extinct? I beg to refer to papers published in the Philosophical Transactions of 1829 and 1833, for my opinions on this subject; which Dr. Prout has either not seen or not understood, for I cannot suppose that he intentionally misrepresents them.

In some instances, Dr. Prout has so modified his opinions, since the publication of his lectures, that certain passages in his present Treatise directly contradict the corresponding passages in them In others he maintains, and endeavours to enforce, some of the most exceptionable of his former positions.

Thus, for example, in his lectures he observes, "In France, most substances are exposed, through the medium of oil or butter, to a temperature of at least 600°, by the operation of frying, or some analogous process. They are then introduced into a macerating vessel, with a little water, and kept for several hours at a temperature far below the boiling point, not perhaps higher than 180°; and by these united processes, properly conducted, the most refractory articles, whether of animal or vegetable origin, are reduced more or less to a state of pulp, and *admirably adapted for the farther action of the stomach.*" In his present Treatise he observes (p. 509, speaking of French cookery), "In one respect, indeed, that of reducing to a state of pulp those refractory substances which we have before mentioned, the culinary processes of our neighbours are much superior to ours; but in nearly every other respect, and most of all in the use of pure sugar *or pure oil, their cookery is eminently injurious to all persons who have weak digestion.*" I had suggested to him, that the frying with butter, or oil, notoriously renders food indigestible. Other similar instances might be adduced, particularly relating to what he calls the organization of the food.

What does Dr. Prout mean by different degrees of organization? matter is either organized or unorganized. With what he says on this subject no distinct idea can be associated, either in his own mind or that of his reader. It only contributes, with his other inaccuracies, to the confusion which all who peruse either his Lectures or his Treatise must perceive.

But in the majority of instances we still find him straining to make the phenomena suit his preconceived opinions. Thus he still maintains that the reduction of food to a state of pulp renders it more digestible, although every ordinary dyspeptic can tell him that the lean part of a mutton-chop, moderately done, is more digestible than any stew he could prepare for him; and, in p. 507, he ranks alcohol among the things of most difficult assimilation, although it is well known that is not only easy of assimilation itself, but for the time, perhaps, more than any thing else, assists in enabling the digestive organs to assimilate other things. He confounds the injurious effects of the habitual use of alcohol, which depend on the hurtful excitement it occasions, with a supposed difficulty in its assimilation. If Dr. Prout's opinions had not shut his mind against the simplest evidence, he would have perceived that, of all solids, the unreduced muscular fibre, and of all liquids, diluted alcohol, are the most easy of assimilation. It is notorious that the latter can often be assimilated by stomachs which can assimilate neither wine nor beer, which he would persuade us is of so much more easy assimilation. The other properties of either animal food or alcohol are questions of a wholly different nature. We should neither recommend alcohol in diseased liver, nor a slice of mutton to a man labouring under fever; but it is certainly, neither in the one case nor the other, because they are difficult of assimilation.

Dr. Prout's theory is, unfortunately, as much in opposition to simple matter of fact, in what he says of sugar, as of alcohol; for every dyspeptic will tell him, that the purest crystallized sugar is more easy of assimilation than either soft sugar or molasses.

His present view of the digestive process is radically defective, in the same way as that given in his lectures. It is to the chemical part of this process alone that his attention is directed, the cause of many of his inaccuracies. His only attempt is to determine the effects of the secreted fluids on the food. On the manner in which the organs which secrete these fluids, and consequently the fluids themselves, are influenced by the different kinds of food, and other causes; and on the powers by which their due application to the food is regulated, powers no less essential to the process of digestion than the chemical properties of these fluids themselves, and the derangement of any one of which, as we see in certain states of disease, deranges every part of that process, he is altogether silent; and consequently respecting the various circumstances which have been determined respecting these essential and most characteristic parts of the digestive process, by some of which design is more simply, and consequently more impressively displayed, than in the nature of things can be done by any of the chemical parts of the process. Where can design be more strikingly displayed than in the manner in which the gastric juice, with the exception of that part of it which is secreted previous to the meal, and when there is little else in the stomach, is so applied to the food, that every particular particle of food, however copious the meal, is equally exposed to that juice at the moment of its secretion; and therefore, before it can be diluted, and thus its powers impaired by the other contents of the stomach, and with an accuracy which sets at defiance all the art of the most careful manipulator; and yet the means employed for a purpose apparently so difficult of attainment, are equally simple and effective. Since, as far as we may judge from the whole of the circumstances, Dr. Prout appears to have volunteered the appropriation of this part of the subject, he should have been particularly careful to fulfil in it the intention of the testator. He observes, that unfortunately cooks are seldom chemists—a circumstance, on the present occasion, less to be regretted than that chemists are seldom physiologists.

This second and most uncalled for aggression of Dr. Prout, I confess, has a little exceeded my patience. It cannot now be maintained that I am not referred to. He has not sufficient delicacy to perceive that, in our late discussion, I wished to spare him as much as my own vindication permitted; for the truth of which I can appeal to what I said to my friends, both at the time and since. This appears, indeed, in the discussion itself, in which I take every opportunity of complimenting him, where it appeared to me there was any opening for it. I now tell Dr. Prout, that if the style he has assumed be continued, I shall give to the public an analysis of his long last reply (the work of some weeks) in the discussion just referred to, which will shew how far he is entitled to erect himself into a judge of others in such matters, and state his decisions in the unmeasured terms he employs. It is but fair, since he assumes the office, that his qualifications for it should be justly appreciated.—I am, sir,

Your obedient servant,
A. P. W. Philip.

Cavendish-square, March 11, 1834.

ANALYSES AND NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'Alembert.

Medical Bibliography. A and B. By James Atkinson, Senior Surgeon to the York County Hospital, &c. &c.

If any one expects to find in this production a grave, steady, stupid book of reference, he will be undeceived by throwing it open at any page. The author is amusing himself throughout; he is a most learned *pun*dit, always in good humour, and cracking his joke whenever a subject for one offers—and that is much more often than perhaps it would to any other writer we have lately met with. Quips, and cranks, and *jeux d'esprit*, are lavished in rich profusion in every part of the volume; and those who are fond of personal bits of anecdote, will be pleased to perceive, that though Mr. Atkinson omits a special article about himself and his works under the letter A, glimpses of him are to be discerned—nay, he shines—in almost every article he has written. The work is appropriately dedicated "To all the idle Medical Students in Great Britain." We must give a specimen of the author's style. Under the head Belin-

GERUS, we find a theory regarding the nourishment of the fœtus noticed as "a monstrous good joke"—whence the author sets out on one of his sentimental excursions, as follows:—

"There is not perhaps any science wherein so many monstrous good jokes, and superlative romances, are exhibited, as in the science of medicine. For instance, it is a monstrous good joke in any practitioner, to suppose that his patients will always abide by him; and yet it is a common error. It is a monstrous good joke, to be observed, that men, of the first science and longest practice, cannot frequently gain the confidence of their patients; when a merry Andrew doctor and his mountebank can take a town by storm in a moment..... It is a monstrous good joke, that a medical man, who is confessedly without brains, shall contrive completely to suck the brains of another, who has not brains to perceive it. It is a monstrous good joke, to observe, sometimes, that the best informed practitioner in a town shall seldom get a fee, whilst the greatest medical fool in the town shall seldom miss one. It is a monstrous good joke, that one accoucheur of high diplomatic power, shall seldom be able to introduce a live child fairly into the world; whilst a man, only *secundi ordinis*, shall frequently bring two, and sometimes three; not leaving behind, of the three, one single fraction; and by that art merely, which my master, Dr. Denman, used to exemplify, as *simple Traction*. It is a monstrous good joke, that one worthy man shall get into the *will* of *every patient he doth kill;* whilst *another*, would as lief kill his *brother*. And, in medicine, it is no small *matter*, that as one doctor gets thin, the other gets *fatter*. But of all good jokes, that joke is the *best*, which has the good sense when to leave off; and to leave off with a *zest*."

The reader will observe, that the latter part of the foregoing passage is quite poetical; but it is a favourite amusement of the author thus occasionally "to build the lofty rhyme."

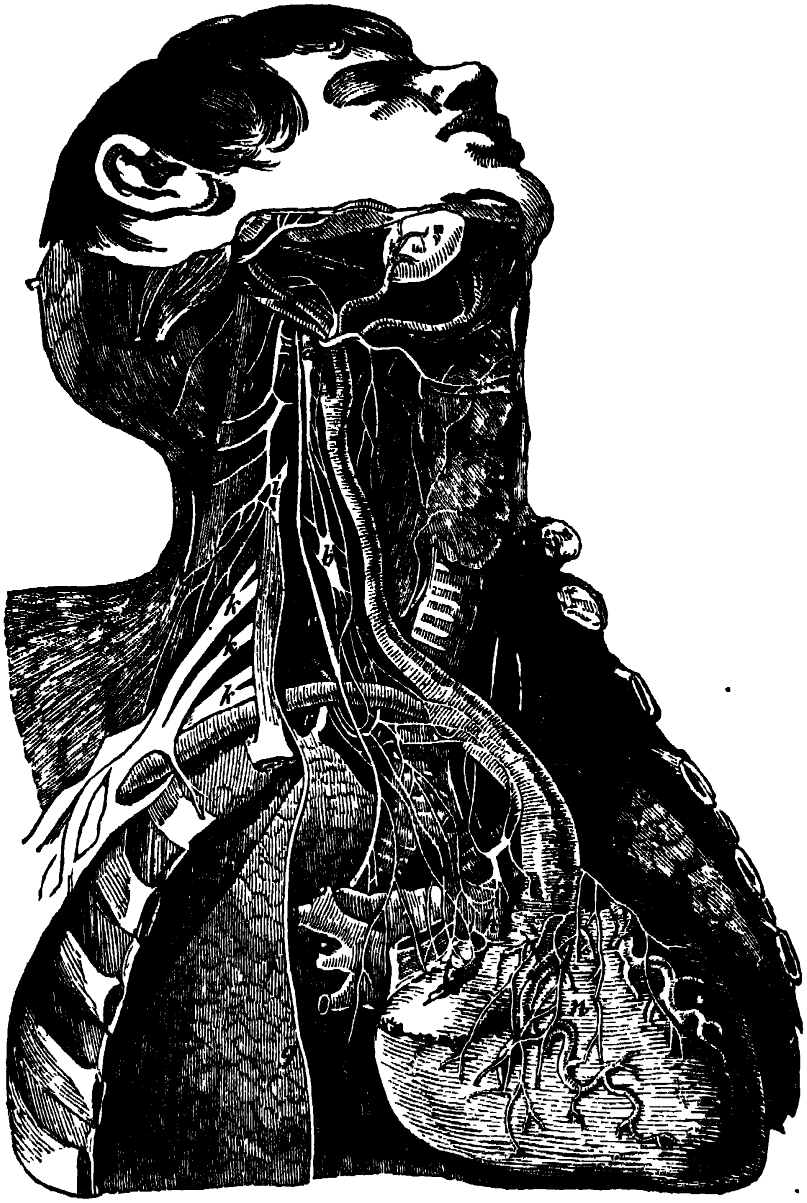
An Introduction to the Study of Human Anatomy. By JAMES PAXTON, M.R.C.S. &c. In two volumes. Vol. II. Sherwood.

IN this second volume, which completes the work, Mr. Paxton displays the same taste and ability which earned for him so much approbation on bringing out the first. Mere anatomy is allowed to be but "lenten entertainment," and requires, or is supposed to require, very often, on the part of the demonstrator, whether in book or lecture, such an effort, in the way of descriptive phraseology, as may render it endurable to the learner. With all this, the anatomical teacher must constantly appeal to the senses, and exhibit the actual things which he describes; and heretofore, if any one would teach anatomy effectively by book, he was obliged to illustrate it with expensive engravings, which formed a serious drawback on his own profits, while it was a heavy tax on the pockets of his readers. In the work before us, however, there is neither a pompous display of powers of description, nor any exhibition of cumbrous embellishment. The merits of Mr. Paxton are rested on the simplicity, the order, and the beautiful precision and neatness of his illustrations. The press, both at home and abroad, has teemed of late with volumes on descriptive anatomy: but we confess we have seen nothing hitherto that bears comparison with the present work in the qualities just specified.

The volume now published contains the anatomy of the absorbent system, of the nervous system, of the organs of sensation, digestion, respiration, and generation, and concludes with an account of the serous system, and cellular tissue. Nor is the work made up of mere dry anatomical details; it will be found to contain quite as much physiology as is suited to render it acceptable to general readers. We would refer particularly to the remarks on the sixth, or the muscular, sense, in which are appropriately introduced the fine observations of Sir Charles Bell (in his Bridgewater Treatise) on this subject; and the short chapter on visceral sensation is pregnant with matter of attractive interest.

The number of diagrams distributed throughout the volume is very considerable; and we think we may fairly say, that they constitute some of the finest specimens of wood engraving we have ever seen. There is an originality, too, in many of the views exhibited, which reflects much credit on the ingenuity of the author.

The following wood engraving is a representation of the excellent view given by Mr. Paxton, of the deep-seated nerves of the neck and thorax.



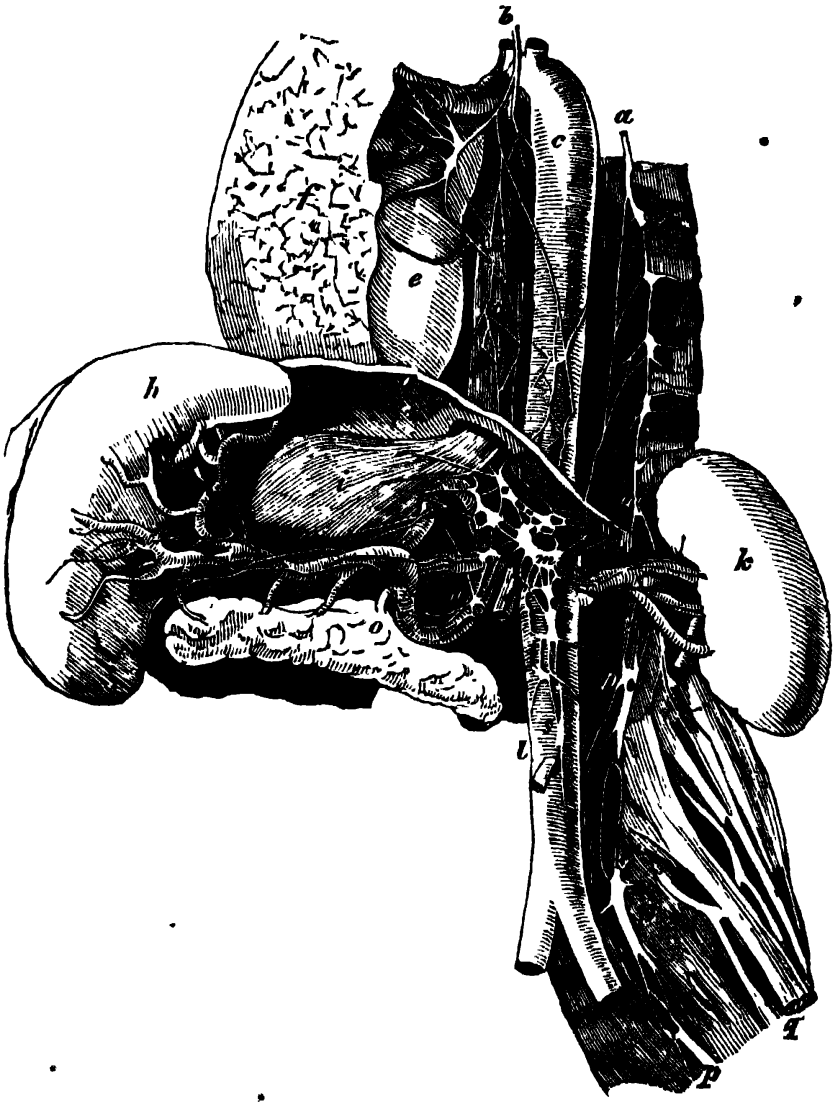
a, The superior cervical ganglion. *b*, The middle cervical. *c*, The pneumogastric nerve. *d*, The recurrent, or inferior laryngeal. *l*, The pharyngeal nerve. *l*, The superior laryngeal. *s*, The cardiac plexus. *n*, The coronary nerves. *k*, The cervical nerves, forming the bronchial plexus. *o p*, The cervical plexus. *i*, Phrenic nerve. *g*, Its course over the lungs to the diaphragm.

We are also tempted to present our readers with the representation of the principal ganglia and plexuses of the thorax and abdomen, as given by Mr. Paxton: for a woodcut, we humbly submit that the artist has acquitted himself in a style of superior excellence.

In closing this volume, we cannot help adding, that we are acquainted with no work on the same subject which is so well calculated to win the attention of the student: it is in every way adapted to render anatomy a popular, as well as a light and pleasant, study.

Description of the Engraving on following page.

a a, Thoracic ganglia. *b*, Pneumo gastric nerve. *c*, The aorta. *d*, Œsophageal plexus. *e*, Pericardium. *f*, Lung. *r*, Pulmonary plexus. *g*, Diaphragm. *h*, Spleen. *i*, Stomach. *k*, Kidney. *l*, Abdominal aorta. *m*, Semilunar ganglion, with the solar plexus. *n*, Splenic plexus. *o*, Pancreas. *p p*, Lumbar ganglia. *q*, Obturator nerve.



MEDICAL GAZETTE.

Saturday, March 15, 1834.

> " Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."
>
> CICERO.

THE NEW "SCHEME;"

OR,

A PLAN TO GET RICH *BY DEGREES.*

We have already directed attention to the fact, that the Council of the Gower-street Medical School have chosen the present very extraordinary moment to renew their application for a charter, with power to confer degrees in medicine; we say an extraordinary moment, because common delicacy ought to have prompted them to await the result of the parliamentary investigation already in progress. On this point we shall only add, at present, that so long as they continue their endeavours to establish a monopoly in conferring medical degrees, so long shall our efforts be directed to expose the unreasonableness of such demand, and the injury which would accrue to medical science from acceding to it.

In discussing this question, the nature and origin of the establishment which seeks for this important privilege ought never to be lost sight of. It is, as we have often taken occasion to remark, *a joint-stock company*, which originated at a time when the rage for new speculations almost amounted to an epidemic insanity in England. Its founders were some of them men of the most liberal views; but many of those who became purchasers of shares expected to make fortunes by the profits which were to accrue from this novel species of traffic. As, however, the hopes of pecuniary advantages originally entertained by the interested, have gradually subsided, and as the sanguine expectations of benefit to the community, which had arisen in the minds of liberal enthusiasts, have died away, the management of the concern has lapsed by degrees into the hands of a few comparatively obscure individuals, with little of the influence or claims to public confidence which distinguished its early patrons. Simultaneously with this change, a system of puffing and pretension, highly discreditable to an establishment professing to be devoted to the purposes of science, was commenced, and has (with but one exception), been continued ever since. The exception to which we allude is formed by the report published by the Council last year, and which had the singular merit of telling the truth, without any disguise, and without any mystification. This report declared the affairs of the institution to be in so miserable and dilapidated a state, that without some extraordinary exertion—some skilful and speedy mode of raising money—it would be impossible for the University to go on, even for another session. The first "SCHEME"—we use their own most significant expression—the first *scheme* which presented itself to the Council, was, without loss of time, to procure a charter, with power to confer degrees on all subjects not theological (see Report, February 1833.) The idea was good, for it was now clearly perceived that the establishment was evidently to stand or fall by its medical school, and that as no other institution existed in the metropolis where the doctorate in physic could be obtained, a tolerably snug monopoly in teaching medicine might thus be secured. The solicitations at the Home Office were therefore renewed forthwith, and some of the shareholders who had seats in parliament very disinterestedly brought the subject under the notice of the House of Commons.

Thus, probably for the first time in the records of speculation, even in this country of adventure, was a joint-stock company established for converting science into a matter of traffic—or were the holders of shares in a declining market bold enough to apply to the government for power to sell degrees in arts, and barter professional distinctions, as a means —and here again we quote their own words—as a means "to provide for this failing state of the finances, and for the future carrying on of the institution*."

Such is the motive which has led to the urgent solicitation for this important privilege—a motive which we do not attribute to them in the heat of controversy, or in the spirit of opposition, but which is openly, and we must say we think most unwisely, avowed by the Council themselves in their address to the proprietors. On the interested nature of the motive, then, it is unnecessary to dwell; but we must call attention for one moment to the consequences of acceding to the demand.

And first we say, that to grant the request, urged in such a questionable shape, would tend, in a degree which no prudent government would despise, to break the confidence of a large and influential body of men, in the wisdom and integrity of their rulers. Another, and obviously a much better, mode has been proposed, by which the Dissenters might be freed from the inconveniences under which they labour; and if such proposal should be set aside to confer a monopoly on the London University, one explanation of the transaction, and one only, would remain—for no man gifted with common sense could hesitate to recognise it as an abandonment of every principle which the present administration, and the original founders of the London University, have professed, and as a sacrifice of their consistency to propitiate a few shareholders in the House of Commons.

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* Report published by the Council, Feb. 1833.

The privilege of conferring the highest honours in the learned professions of medicine and the law, to be vested in a joint-stock company, whose shares—reduced to one-fourth their original price—are bought and sold in the market with Poyais Bonds and Mexican Mines! Let this be done, and for the moderate sum of 25*l.* any quack or spine-doctor in the kingdom may become a proprietor of the University, and thus possess a direct influence over the polity of the liberal professions. But even admitting this to be an extreme case—which, however, a perusal of the list of stewards to the hospital dinner convinces us it is not—still it cannot be denied that it is absolutely impossible for the government to foresee into whose hands the power, if once delegated, might pass; nor will any one, we presume, be bold enough to anticipate favourable results to science from a state of matters so incongruous—so unprecedented—and so repugnant to all that befits the awarding of honours, either to the elegant accomplishments of literature, or the graver acquirements of professional learning!

Were there no other mode by which the Dissenters might be freed from their present disabilities, it might, perhaps, be matter of reasonable doubt whether it were not better to concede to the Gower-street establishment the power they seek, rather than to refuse such relief altogether, great as are the anomalies, and grievous the evils, which would result; and this consideration it is which we have ascertained has influenced several of those members of parliament who have expressed themselves favourable to the grant. But we must add, that the moment it has been explained to them, that the expediency of conferring academic honours in London, unfettered by ecclesiastical distinctions, is not only not opposed, but strongly advocated by the teachers in the great medical schools of the metropolis, they have at once acknowledged the justice of opposing any exclusive grant to the so-called "University," and have become converts to the plan which was originally proposed in this journal so early as October 1832. The plan, indeed, is very simple, and conveys no hostile manifestation whatever towards the school in Gower-Street. It is, that the power of conferring *professional* ranks, titles, or qualifications to practise, should be conferred on no individual establishment, but on one so constituted as to be perfectly independent of them all. Now this is the prayer of those connected with all the medical schools of repute in London, including several of the principal Professors of King's College, and excepting only the London University. To endeavour, therefore, to represent this as the opposition of a conservative clique—a mere "medical coterie," as the great advocate (we beg his pardon, the great *solicitor*) of the University, has done, we must say, is both uncandid and unfair. The "coterie" includes above seventy medical men in the metropolis, who occupy positions of no secondary rank, whether they be considered as practitioners or as teachers. But it matters little what view is taken by those who hold a deep stake in the University, and are therefore too much interested in the result to be capable of judging impartially on the subject; for effectual means have been taken to open the eyes of those with whom the decision must rest, and we have no fear that the present government will suffer the establishment of a new monopoly, and thus raise for themselves a monument, to record their own inconsistency; or that they will break through the exclusive system of former times, and remove corporate abuses in other quarters, only to establish a close and more profitable trade for the members of their own political party.

The result to be apprehended, is not that ministers will grant the power of conferring degrees in medicine on the London University, but that, finding contending petitions, they may be led to refuse the power alike to all, and thus the benefits which would result from so desirable an acquisition be ultimately lost. Some of those who take a deep interest in the affairs of the Gower-Street institution, profess their admiration of the principle of *co-operation.* Thus, for instance, Mr. Tooke, in presenting a petition from Mr. Owen, a few days ago, in the House of Commons, declared that gentleman to be "entitled to credit, for calling public attention to the superiority of the principle of co-operation, as compared with that of competition; the one eliciting all the better feelings and charities of our nature, and the other exciting all its most hateful passions." Let the honourable member, then, act upon his own doctrine—let him "co-operate" with those connected with the other schools, instead of suffering his "most hateful passions" to be excited by the baneful spirit of "competition." We repeat, that those connected with all the schools, except the London University, are agreed in petitioning that the power of conferring degrees be vested in some central body, alike open to the pupils of all—alike independent of the teachers of all. They seek nothing for themselves—they desire to withhold nothing from the London University which it is content to participate with them. Let Mr. Tooke and his friends "co-operate," and the cause of the Dissenters is won; for were the petitioners unanimous, there is every reason to believe that the government would at once concede the boon.

A busy bustling proprietor and member of the Council of the London University, wrote, a few days since, to the Editor of the *Times*, a letter, the object of which is not, indeed, to meet us fairly, but to insinuate, with the hope, probably, of being credited by the ignorant, that we have employed "falsehood" and "interested delusion" against the University. But we have dealt in no vague generalities; we have given dates and numbers, circumstances and specifications, on the authority of the printed reports of the Council. "Wilful ignorance," too, there may be, but it rests not with us; and if W. T. (for such is the signature), will come to particulars, instead of mere unsupported assertions, and shew that any errors have been committed by himself or the other members of the Council, in their published documents, or any unwarrantable inferences drawn by us from them, we pledge ourselves to give them the full benefit of the correction. Meantime we recommend to the learned solicitor to keep his temper, to whatever extent he may happen to be a shareholder in the concern, and however forlorn the hope may now be of the "scheme" of obtaining an exclusive market for the sale of degrees becoming available. It was certainly provoking that the Governors of the Middlesex should have scouted his plan of buying the right of appointing two of the "professors" of the London University to the medical staff of their hospital, for the profferred sum of 2000*l.*; but still this is scarcely a sufficient reason for classing all the great schools of the metropolis as "medical coteries," opposing, on illiberal grounds, the "scheme" for raising the shares of his joint-stock company. Neither does the failure of the speculation justify him in accusing *others* of "interested delusion," without adducing, and we take leave to add, without being capable of adducing, a single fact in corroboration of his assertion. We cast back his imputation with scorn;—"falsehood," we believe, there has been, but he must seek elsewhere for its authors.

PARLIAMENTARY COMMITTEE.

The oral examinations commenced on Thursday, when Dr. F. Hawkins, Registrar of the College of Physicians, was examined. We believe that it was intended to have begun with the evidence of the learned President, but that some preliminary information was desired respecting certain documents. The evidence is to be printed as it is taken, but only for the benefit of the members of the Committee. To publish it would amount to a breach of privilege.

CLINICAL LECTURE
ON
CASES OF HERNIA;

Delivered at the Middlesex Hospital,

By Sir Charles Bell.

AFFECTIONS OF THE PORTIO DURA.

Before I proceed to my proper subject, which is Hernia, I cannot help expressing my surprise at the number of cases of affections of the nerves of the face which have occurred to us during the last week. You have had before you a case of affection of the portio dura of the seventh pair, in a patient in Hertford Ward, where the symptoms appear to have been produced by pressure on the nerve, near the stylo mastoidean hole, for every part to which the nerve is distributed was affected. I had a case of paralysis of the face of the same kind, sent to my house by Dr. Marshall Hall, who kindly conceived that I might have an interest in it. The patient, a little old man, gave me a cock-and-a-bull story about the cause of it. It seems, that when his mother was pregnant, she was frightened by the noise of a pig under the knife of the butcher, on which she clapped her hand to her ear; and thence the misfortune to her offspring, this loss of power in the side of the face, and this pendant ear, which hangs over like a hound's or a pig's. He has been deaf, as well as paralytic, on that side, since his childhood. Dr. Copland, with the same kind intention, sent me a man in a similar condition. His story was, that in a Christmas gambol he got his ear pulled, which was followed by pain in his ear, and deafness, and after some time, by the loss of power in the muscles of one side of the face. That is the patient now in Stafford Ward; and you have an opportunity of observing the characteristic symptoms of an affection of the portio dura within the ear, and, as I am much afraid, where there is some affection of the base of the brain. Mr. Elwyn will inform you, that on softly approaching the patient's bed while asleep, he observes that he contrives to lie on the pillow in such a manner that his cheek is forced up, so as to close the eye-lids. I have noticed, in other patients who had paralysis of the muscles of the face, that they avoided lying on the sound side, because the pillow obstructed the motion of the nostril that was free. Since the occurrence of these three cases, two others have been presented to me, one of which is an instance of a very interesting kind, as proving the effect of the division of the portio dura. Some few years ago I should have given all my goods to have had such a confirmation of my opinion regarding the office of the portio dura. This gentleman came to my house, accompanying his sister, who was my patient; his appearance was very remarkable, and I confess distracted my attention not a little. After giving my advice to the lady, I ventured to ask him a few questions, which he answered very politely and good naturedly. His features were drawn to one side in the most extraordinary manner I had ever seen. His mouth appeared to open upon the right cheek; the motions and animation of his features were altogether confined to the right side; the other side of his face was a mere inanimate mask: the eye-brows remained motionless, the eyelids open, and the skin of the cheek drawn tight. He had perfect sensibility, though no motion. This more than ordinary distortion is attributable to the peculiar cause: for in the cases that I have had an opportunity of shewing you, the nerve was morbidly affected, but not destroyed. More or less disease in a part in the neighbourhood of the nerve, or inflammation around it, or pressure upon it from a swelled gland, may produce such appearances as you have beheld; but in this case the nerve had been totally divided, and at an early age. He told me, that when at school, he, with some of his companions, undertook the rolling up of a cask; the cask recoiled, bore him down, and the end of one of the hoops caught him under the ear. The hæmorrhage was very great, and to suppress it they had to stuff the wound. When he had the opportunity of observing, he found that he had lost all motion of that side of his face. I have no doubt that the trunk of the portio dura had been divided. The effect, altogether, of the loss of the office of the portio dura, on a fat, fair, good humoured countenance, is most lamentable. The remedies to which this gentleman submitted do not convey a very high notion of the knowledge of his medical attendants: for what could they intend by courses of mercury, electricity, and friction, when the sole nerve which animates the features was actually divided. Having had these cases before you, you will yourselves reflect on the condition in which a patient would be left, were you intentionally to cut across the portio dura for tic douloureux: his face would haunt you in your sleep.

FEMORAL HERNIA.

But I proposed to-day to make some remarks on these two cases of hernia, which you have just visited with me, both occurring in women, and in whom the operations have been successful.

Our progress in professional knowledge is not represented by a straight line: we do not move uniformly forward, but rather like a man on skates, whose efforts receive a bias, and who, after certain complimentary manœuvres to the admiring crowd, returns very nearly to the point of the circle from which he set out. You will be more sensible of this as you advance in life. In recommending you to study the anatomy of hernia, I may suggest this to you—that if you proceed in your dissection with a fine-edged scalpel, hook, and forceps, you may display all the fasciæ that have been minutely described in books, and yet remain ignorant of the exact ligament or tendon which strangulates the gut, or, indeed, of the nature of those passages through which rupture takes place. Let me, then, advise you to *feel* your way here. Suppose you were in the situation which I held early in life, that of assistant to a lecturer, and that he required you to make such a hernia on the dead subject as he could operate upon,—you must make your incision into the abdomen; you get your hand into it, and feel all round the inside of Poupart's ligament, and round the pillars of the rings, in search of the internal ring; but you find no outlet. The first thing you are called on to admire is how completely—how perfectly, this lower part of the abdominal walls is closed up—how admirably it is contrived that the viscera shall not slip out by the arch, under Poupart's ligament, which admits the vessels to the thigh, nor through the spermatic passage.

But being forced to make an inguinal hernia, you begin to work at that point where the vessels of the testicle or cord (scarcely yet a cord) pass through. The vessels of the testicle pass between the two portions of the transversalis fascia; and, at last, you bore in your finger, and make the passage wider and wider. What do you feel? You feel that towards the inside—that is to say, towards the pubes—you have a difficulty in enlarging the passage; you feel the sharp edge of a tendon or ligament, and that you must break it down by force, so as to bring the internal ring nearly opposite to the external one; at last, your finger slips out between the pillars of the external abdominal ring. Now this is an admirable demonstration, although there be nothing seen! You have, what is better, a distinct *feeling*—a conviction of what it is that makes the stricture, whether at the inner or the outer ring. Now you understand what I mean by recommending you to trust to the finger, or to the touch, rather than to the eye.

Formerly, in my course of lectures, when I came to this subject, I was happy to speak of Sir Astley Cooper's work as one creditable to himself, to the profession, and to the country. I conceive that in that publication the anatomy is perfect to its end; for I hold that the anatomy may be carried too far. You will say that is a strange opinion: how can it do any harm? By occupying your minds too much, to the exclusion of things more important; and I hold that the pathology of the intestine, from which the very rules of practice are drawn, is more important than the anatomy of the rings. Besides, it is quite possible, as I have seen, for students to dissect and work on the fasciæ of the groin and inside of the abdomen for the greater part of the season, to the neglect of many subjects equally important in practice. That is what I mean by saying that the anatomy may be carried too far;—it may occupy too much of your time and attention.

Now I wish that the abilities of my friend Mr. Guthrie had been directed to a different subject. By taking up this, he appears to me to be re-touching a portrait that was already finished. A picture which had been carefully composed, varnished, framed, hung up, and admired, he takes down again, and re-touches, and, I had almost said, daubs it with foreign colours. I am unwilling to acknowledge these foreign authorities, for, after all, their utmost merit is to have done in their own country what Sir Astley Cooper has given them an example of in this. I am not about to deliver any thing new: but I have always thought, and do now think, that in consequence of the discussions concerning the parts around the sac, there has been rather a neglect of the great principles of pathology which are to be drawn from the contemplation of the gut. I have heretofore criticised freely some of the opinions in Sir Astley Cooper's great work, upon the same grounds that I would now criticise his commentator.

It is conceived that the stricture, in inguinal hernia, may result from the contraction of the muscular fibres of the passage. Now I would ask you, for already you are acquainted with the data on which we reason, do you observe any difference in the symptoms of a hernia when it comes through the spermatic passage, and when it comes under Poupart's ligament; when it comes through some of the accidental rents in the abdominal walls, and is called an abdominal or ventral hernia; and when it comes through the umbilical passage, and is called *exomphalos*; or when it is an internal hernia, and passes through the diaphragm or the obturator ligament? Is there any record of symptoms to distinguish the case according to the part through which the intestine passes? Is it not, on the contrary, universally assented to and understood, that the symptoms of hernia are the same, in whatever part the disease occurs? Now you observe how this bears upon the question, because, if the symptoms of a hernia be universally the same where there are muscular fibres and where there are none, it is pretty clear that these symptoms must be attributable to something else than the muscular fibres of the ring. Why is it that the pain is always referred to the umbilicus? Because the girding of a portion of the intestine is attended with an action in the intestine itself, and the pain is first fixed in that part, and then passes round, as in colic, attended with a twisting in the region of the umbilicus; which pain again returns to the part which is strictured, wherever the stricture may be. The irregularity, or rather the return of the pain, is the character which belongs to spasmodic action; but this spasm is not from the girding of the stricture around the intestine, but from the action of the intestine itself: it is a muscular tube, and in it, as in all muscular parts, the pain occurs in paroxysms.

But in order to keep our attention to points of practice, and not to fall into theoretical disquisition, I must now read a case of femoral hernia.

Irreducible Femoral Hernia—Operation.

“Mary Booth, 42 years of age, a married woman, was admitted into the hospital on the 19th of December, at one o'clock, with an irreducible femoral hernia of the left side. She first perceived it two years ago, and it came down when she was lifting a heavy weight. She was brought into this hospital, and relieved by the warm-bath and the taxis. She was dismissed; and from the time she left the hospital she has worn a truss, and has not left it off since. About eight o'clock on the 19th (five hours previous to her admission), when she was moving a heavy weight, she found great inconvenience in the seat of the rupture, and, on taking off the truss, she found the swelling had suddenly increased in size. A medical gentleman was applied to, who was, however, unable to reduce the tumor, and he advised her to come into the hospital immediately.”

Let me observe, that if, as I have sometimes flattered myself, we have been, of late, more successful in cases of hernia, it is not owing to any improved principle or practice on our part, or our greater activity or dexterity, but to a general improvement. There is no practitioner in our neighbourhood who is not aware of the necessity of immediate assistance, and now the patients are brought more directly under our observation. This is, in fact, the cause of our better success.

“When she came into the hospital the taxis was employed, she was bled to syncope, put into a warm-bath, and the attempt at reduction made again, but in vain: the tumor remained of the size of a large walnut; not, however, very tense. There appeared a small swelling on the right side also; but for this she had not worn a truss. She was now very sick; and although she said that her bowels had been opened twice during the day, about two hours after her admission the pain became very severe, and extended all over the abdomen. At nine A.M. the bath was again employed, but without success. The surgeon of the week was sent for; he examined the swelling, and after the necessary consultation he determined on operating.”

You saw the operation, gentlemen, and now I shall merely remind you of the mode of performing it. You may either draw a fine-edged knife over the integuments, or operate as you saw me do, by pinching up the integuments and cutting them while they are held so. The only advantage of this mode is that you do it at once, with little pain to the patient. You may, however, on making the incision, attempt, if you choose, to leave such a flap as will cover the neck of the sac, and enable you to put your compress on with more effect. Under the integuments were the fat and glands, and certain filaments of the external fascia mixing with the fat. After a little dissection, you saw we came to the neck of the sac—to the crescentic arch. Now, if you are operating, you should prosecute the dissection so as fairly to expose the crescentic arch, and consequently be more careful in clearing the neck of the sac than the body of the tumor. If it be a large hernia, you are not to draw the knife over its whole length. I have, many years ago, seen the surgeon, when the tumor was large, draw his knife from the top to the bottom. If it be small, this must, of course, be done; but the object of the incision is to get to the neck of the sac, and it is not to be long, in proportion to the tumor. If you cut the whole length of the hernia, you have the whole mass of intestines in your hands; than which, nothing can be worse, for it is then difficult to reduce them: you are forced to handle them, tumble them about, and squeeze them; and when you reduce them at last, it is ten to one but you have inflammation of the whole mass, and death the consequence. Perhaps I should have reserved this remark for a case of scrotal or umbilical hernia; but it is enough that you understand me.

There is a peculiarity in femoral hernia; I mean the fineness of the sac. First, you have a sheath round the proper sac, which deceives you, because, owing to the regularity of its form, you are apt to take it for the true sac. It is not the sac, but the fascia over it thus curiously moulded. You catch it in a fold with the forceps, and, carrying your knife horizontally, open it; then you introduce the bistoury, slit up the membrane, and then you find what appears to be the intestine; and many have allowed themselves to be so deceived, thinking they have come to the intestine, because the surface now presented has so much of its shape and colour. Look narrowly into it, and you will find that you have not the blood-vessels as they should appear; or take the membrane between your finger and thumb, and you will feel the nucleus within—that there is still a sac, though a very thin one, between your fingers and the intestine. You open this, the true peritoneal sac, and out spurts a serous fluid. The serous exudation from the surface of the intestines and the interior of the sac, points out directly that you have penetrated the peritoneum, and now slitting it open, you see the little dark-coloured fold of intestine. This is the moment decisive of the patient's fate: you judge of success or failure by the appearance of the intestine. If it be very dark, you are alarmed. The intestine may be dead, and ready to slough, or it may be dark by extravasation, or in consequence of the mere gorging of the veins. You saw in this case, that, although dark, the vessels carried blood, and that I therefore thought right to reduce the intestine. Now, as to the manner of doing this, it is well to say that the finger is the best director; but take care that you do not use your finger here for that purpose, for by the attempt to squeeze in the finger between the neck of the sac and the intestine, you will be in danger of bruising the already tender intestine irreparably. You smooth down the gut and pass in your director, and then the bistoury along the groove of the director; and, keeping the points of these two instruments together, you separate them by raising the knife like a lever. You need not cut, or draw the knife, but just separate the two instruments, and the effect is that you do not cut the soft cellular texture, but only the part which resists. It is the firm edge of the sac and ligament which resist; and these only are cut. Need I say that your assistant should, in the meantime, carefully guard the intestine?

Now if you wait for a minute there is no harm—you may perhaps have the pleasure of seeing the immediate change in the colour of the intestines (for the circulation has been very much impeded); if it is free, after this delay it takes a livelier colour, which is the most favourable symptom you can desire. What do you do next? Push up the intestine? No; gently draw it down—*very gently*; because I beg you to recollect that where the intestine has been long held in the grasp of a sharp stricture, it is hurt and made tender; especially the inner coat. You gradually pull it down, because you have to press out the contents of the intestine, and if you do that while there remains any degree of stricture at the part of the intestine which has been long held and bruised, you may do a great deal of harm. You pull it down, in order to bring the healthy part of the intestine opposite to the neck of the sac; and then you compress the intestine. You do not even now attempt to push it up, but you compress it, so that the fluid which has accumulated in it (perhaps the fæces, but more likely a mucous secretion) is urged forwards. The intestine then being flat, with a very little assistance on your part it is drawn in; and if it be so drawn by the excited intestines within, that is another favourable circumstance, and promises well.

But suppose that it happens, as it occurred in this case, that when the sac is opened the intestine appears in an unfavourable state; what is to be done? You heard what my colleague said; he advised the gut to be opened, and I have often done it; but it is a most serious question, and is not to be done unless you have grave reasons for it. I remember being in consultation, in precisely the same circumstances, with my friend Mr. Brodie; whose plain good sense in these matters is above eulogy. He inquired, "shall we open the intestine?" I begged that he would put a warm sponge upon the intestine, and that we should retire for a moment. We did so; and it was agreed between us, that if the colour of the intestine recovered during the short interval, then it should be returned; and further, if it did not appear to be decidedly recovering, that, without any further intercourse of signs or words, he should touch the surface with the point of the lancet; and if the blood came, that the intestine should be reduced. On returning to the patient, the blood did start from the touch of the lancet, and the intestine was returned. The patient recovered.

I will give you another reason why, in this case, I returned the intestine; for, paying all due respect to the opinion of my colleague, it suggested itself to me that the colour of the intestine was not such exactly as we find to be produced by congestion; it appeared more like ecchymosis, the effect of the severe pressure used during the employment of the taxis. It was this circumstance which influenced me to reduce the gut; and by the success of the measure, we may say that it was well the distinction was made. But, in passing, you will not fail to recollect the degree of injury that may be done to the surface of the bowel, by too much pressure in the attempt to reduce it.

The operation was performed at twelve o'clock; an hour after the operation a common injection was administered. At four o'clock the bowels had not been relieved, but the pain was less, and the patient had been dosing; the pulse 90, and soft; the tongue clean and moist. There were now given her six drachms of castor oil, and two drachms of tincture of senna. At ten o'clock the bowels were relieved once, and she then began to take a little calomel and opium—two grains of calomel, with a quarter of a grain of opium. In the morning she had slept a little; the bowels had been relieved three times in all since the operation; the pulse 96, and soft; slight pain in the abdomen; tongue clean and moist. I need not go on with these particulars, though it is right that they should be noted down; I will merely state, that every thing went on successfully.

I have only one remark to make on the treatment. At one time I entertained the idea, that after such an operation, and after the intestines had long suffered, as they must necessarily do in hernia, by working under their load, and when they were in a condition prone to inflammation, the best thing that could be done was to allow them to remain quiet under the influence of an opiate, and to evacuate only the lower part of the bowels by large clysters. But, after experience, I found it to be of the greatest consequence to have a full operation on the bowels, only taking care that it should be obtained by the mildest possible means. If you administer castor oil, it will probably be rejected; but if you add to an ounce of it three drachms of tincture of senna, it will be more likely to remain on the stomach, and produce a full and repeated operation on the bowels, bringing away scybalæ, and effectually relieving the intestines. When this is done, you have the fairest possible promise of success; yet even then we cannot be quite relieved of the apprehension of peritoneal inflammation.

Now there are some questions that suggest themselves from this case; and there are others arising from what I know to be passing in your minds.

With regard to the propriety of opening the gut, let us think what is the object of that practice. When the patient dies after the operation, you very often find that the part of the gut which was down in the herniary sac, has been so injured, that it has refused to act; that is to say, its muscular fibres have not been excited to the series of actions which should proceed in regular succession in all the length of the intestinal canal; and the portion that was included, though freed, has continued to be the cause of obstruction. When we think that the intestine is so far gone, by the process of incarceration (and strangulation supervening on incarceration), you are sure that the muscular fibre will not act, even after the stricture is removed, and the intestine reduced into the abdomen. When we find an intestine in such a condition, and we are very certain that it will not resume its action when reduced, it is better to slit it up at once, and to relieve the upper part of the bowels, introducing from the slit a clyster pipe, and allowing the accumulated flatus and secretion to pass off; for if you have understood the principle of pathology, you will recollect that the grievous symptoms in hernia proceed from the distention of the portion of the canal between the stomach and the stricture.

When by such means the pressing danger is removed, you have produced the case of anus at the groin, and have to think how that is to be managed.

But the next thing that occurs in the present case, and which I know you are discussing among yourselves, is the recommendation of removing the stricture without opening the sac. See, then, what took place here: I found, upon cutting the crescentic edge or the little wing-like process which goes down to the sheath of the femoral vessels, and which is continued from the lower or inferior edge of Poupart's ligament, that the stricture was not taken off. You saw that I had considerable difficulty; you saw that the operation was as tedious as it was difficult; but you could not see what I beg to assure you of, the great care that I took of the intestine, neither to finger it too much, nor to compress it too strongly, and for the reasons I have assigned. I found that the stricture was not removed, that it was in the neck of the sac, and not in the tendon. Those of you who were near me must have seen with interest, that the operation appeared to be finished—that the tumor disappeared—that the intestine was *removed from the eye;* but the case was not satisfactory to me; so that, after it must have been supposed by you that the operation was completed, you saw me draw the whole portion of intestine down again; that then the assistant took firm hold of the sac, pulling it down so as to be on the stretch; that I passed the director and bistoury again between the gut and the sac, and cut the stricture deep, a full inch within the crescentic arch. That which I cut was the edge of the stricture of the proper sac. You will now reflect upon what is stated in the narrative of the case, that from the time the patient first came into the hospital she had worn a truss. Remember what is the effect of a truss. The pressure of a truss produces a change in the peritoneal sac, and you have always to fear that a certain degree of stricture, or unusual firmness, will occur in the neck of the sac, when there has been a truss long worn. This is one of the disadvantages, contrasted with the many essential advantages, of a truss; it produces a condensation which entirely destroys the natural elasticity of the neck of the sac, and produces some cord-like filaments in it.

A patient was brought into the hospital moribund, and died; and we had an opportunity of examining him. He had been operated upon by the taxis, and the surgeon was convinced that he had done every thing required of him. A tumor was discovered quite within the muscular walls of the abdomen, which proved to be the strangulated intestine within the peritoneal sac; so that the surgeon had reduced the sac, and the intestine within it; and the stricture which produced the strangulation being in the mouth of the sac, there was no relief, and the patient died. Here, then, is the first thing that you will reflect upon when this question is agitated, regarding the propriety of opening the sac. Always remember that, in certain circumstances, the stricture is in the neck of the sac itself.

Now I go freely into this question, because I have studied it, as I stated before, and acted upon it long ago; I have repeatedly, within the last few years, in operating, taken off the stricture by dividing the tendon, and have reduced the intestine without opening the sac. Having done it, I say that I do not feel a disposition hostile to the practice; but I have to recommend you to be guarded, for you see that it is possible, even when the sac is opened, to reduce the intestine without relieving the stricture: how much greater the danger when the sac is not opened at all! On this very occasion, where I hope you saw that there was every care taken in the performance of the operation, I had got the knuckle of intestine within the ligament, and out of sight—to all outward appearance, successfully reduced. But the condition of the parts did not satisfy me. I thought of the dangers, and resolved to bring all down again, and to trace the edge of the sac to the stricture, and to make certain of its division. In certain cases, such as in a recent hernia, where it is quite clear that there has not been time for the condensation of the sac; and again, in a large hernia, it may be right to dissect the fibres from around the mouth of the peritoneal sac, and to reduce the gut without disclosing it.

The recent publication of Mr. Key on this subject is highly creditable to him; and I conceive it to be a very fortunate circumstance, when our great hospitals are in possession of those well-informed men, who have their minds alive to all the improvements, and all the important questions of practice. However, I do not mean to say that he conceives it is a new question. When I attended Dr. Alexander Monro, the father of the present professor, he delivered himself in the most animated manner on this subject. He was a thoroughly well-educated man in surgery, and he saw more surgery in consultation than most operating surgeons do. He had, in two or three cases, advised the operation to be performed without opening the sac, and these cases terminated successfully. I well remember, that he delivered himself on this subject with that liveliness of manner which shews a man to believe that he has made an important improvement. He perhaps carried the suggestion too far, or sustained it too ingeniously. He was so far short-sighted in this matter, as to conceive that the opening of shut sacs was very dangerous, owing to the admission of atmospheric air within them; and one of the cases which he brought in illustration led to a good deal of good-humoured criticism,—that of a man who died from inflammation of the pericardium. In the detail of the case, it appeared that "this shut sac had been opened by the thrust of a red-hot poker!" Most of us thought that there was sufficient cause of inflammation, independently of the admission of air, which doctrine was then the Doctor's hobby. He carried his theory so far, that he conceived it possible that the Cæsarean section might be performed with safety, if done under water. But still, by those instances, you see how he meant to argue against the practice of opening the sac of a hernia.

I was about to read another case, but that will bring up other questions, and questions of great importance; I will therefore defer it till I next have the pleasure of seeing you.

MEDICO-CHIRURGICAL SOCIETY.

Tuesday, March 11, 1834.

Among the changes adopted at the late annual election of the officers of this society, we observe that Dr. Clendinning has been appointed one of the secretaries, *vice* Dr. Robert Lee, resigned.

The business of the evening consisted in the reading of a paper from the pen of Dr. Marshall Hall,—*On a New and Simple Mode of Operation for Nævus*,—which was followed by a short discussion. The substance of the paper was given in this journal, by Dr. Hall himself, some time ago*. The practice recommended, it may be remembered, consists in introducing a *couching needle*, with cutting edges, several times through the nævus, with a view to produce a certain degree of adhesive inflammation. Some general remarks on other modes of treatment were contained in the paper; and some cases illustrative of the efficacy of the method proposed were appended.

Mr. Lloyd conceived that the method suggested by Dr. Hall was only adapted to small nævi, where almost any thing producing irritation would answer the purpose; but he (Mr. L.) had seen puncture, injection, caustic, and other energetic methods, fail in the treatment of large nævi.

Mr. Stanley observed, that Dr. Hall had omitted to notice the great variety that there are of those nævi, and the actual structure of which can scarcely be predicated from their outward appearance. He conceived, therefore, that surgeons had a discretion to exercise in the proper treatment to be adopted. Mr. S. subsequently observed, in reply to a question from Mr. Partridge, that he had examined some nævi which had been removed by the knife, and he was always surprised at the extraordinary diminution undergone in bulk when the blood was let out; and dissection of them only shewed a sort of reticulated structure, which could scarcely be said to consist of cells.

Dr. Locock confessed he was disappointed in Dr. Hall's paper. All modes except his own had been condemned by the author; yet he, Dr. L., thought that in some of the cases adduced, the cure was not owing to the needles, but had occurred spontaneously; and he cited a curious instance of spontaneous cure of nævus of the nates of an infant, where ulceration began at the anus. The morbid structures disappear rapidly when once they begin to do so. The mode of employing the pock of vaccination for their removal he deemed commendable; but of course it was not always applicable. He had heard of a nævus removed by the production of a pustule, caused by the insertion of a small crystal of tartar emetic within the nævus: this had been done by Mr. Walker, of St. George's.

Mr. Lloyd said he had frequently tried tartar emetic externally, without success; and he observed, that Dr. Hall had omitted to notice nitric acid among the remedies, a substance which was known to be very effectual in curing small nævi.

ROYAL INSTITUTION.

Friday, Feb. 21, 1834.

Dr. Grant gave a lecture *On the Nervous System in the Lower Animals*. He began with the lowest part of the scale of animal creation—with those creatures, in fact, which have been supposed destitute of nerves, or nervous matter, but in which the existence of a nervous organization must be admitted as proved by the vital phenomena. With the aid of an abundant supply of drawings—superabundant, we might say, for the very reference to them, in the order required for illustrating the subject of the lecture, occupied almost the whole of the time—the lecturer took a rapid survey of the successive stages of development displayed in the various orders of animals; and amused his audience, when he came to the human being, by informing them that at one period of fœtal life, the brain of the future man is that of a tadpole, at another that of a fish, and subsequently that of a crocodile. It was much to be regretted that the materials of the lecture on this occasion were so crowded and so ill-arranged; an unprofessional audience could only be mystified by the rapidity with which matters of so much interest were brought before them like fleeting shadows. We should not make this remark, but that we could not shut our ears to the complaints so liberally expressed around us; and perhaps the lecturer may not be dissatisfied with a hint of what will contribute to render his next display more acceptable to a general auditory.

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* See our 7th volume, p. 677; also vol. ix. p. 353.

Friday, Feb. 28.

The subject of this evening's lecture was the *Gas-lighting of the Metropolis*, on which Mr. Brande treated with his usual ability. He gave an account of the various products arising in the manufacture of gas; explained the principal contrivances by which the amount of labour of the workmen is ascertained, and by which the quantities of gas produced and consumed are accurately registered; and, in conclusion, he stated numerous interesting details relative to the mode of diffusing the gas through the town, and the prodigious number of burners which are employed in the streets and houses.

MOSCATI'S DEVELOPMENTS.

The members of the Phrenological Society must really be proud of the figure which "the Marquis" has recently made—that distinguished "person" who contributed so largely not long since to embellish their *scientific* soirées. There he used to flourish with his shaven crown, that all might see and admire the extraordinary developments on his wonderful head! Alas! for the cause of phrenology, that no one—not even the famed gauger of other men's brains in the Strand—should have detected any of those powers and faculties of *invention* which the *Times* has, within these few days, so successfully brought to light! Alas! too, for the sagacity of a contemporary, who, though he was a match for Chabert, the fire-eater, yet could not resist the temptation of swallowing Moscati's skull, bumps and all! Truly, phrenology is a deep and wonderful science!

LITERARY ANNOUNCEMENT.

We are requested to notice a forthcoming edition of the Works of John Hunter, by J. F. Palmer, Senior Surgeon to the St. George's and St. James's Dispensary; assisted by Mr. Babington, of St. George's Hospital, Mr. T. Bell, Mr. R. Owen, and Dr. Robert Lee. We are informed that the Royal Society have, with great liberality, granted the use of the whole of their copper-plate engravings connected with Mr. Hunter's papers in the Philosophical Transactions, for the purpose of enabling the Editor to complete the series of plates designed for the illustration of this edition.

NEW MEDICAL WORKS.

Outlines of the Anatomy and Physiology of the Teeth, &c.; with Practical Observations on Artificial Teeth. By David Wemyss Jobson, 8vo. 12s. bds.

Preparing for Publication.

Pathological and Surgical Observations on the Diseases of the Joints. By B. C. Brodie, Esq., V.P.R.S. Third edition, revised, altered, and enlarged. *Nearly ready.*

Elements of Medical Police; or, the Principles and Practice of Legislating for the Public Health. By Bisset Hawkins, M.D. 1 vol. 8vo.

WEEKLY ACCOUNT OF BURIALS,

From Bills of Mortality, *March* 11, 1834.

Abscess	2	Hooping-Cough	3
Age and Debility	38	Inflammation	23
Apoplexy	9	Bowels & Stomach	6
Asthma	23	Brain	11
Cancer	2	Lungs and Pleura	8
Childbirth	1	Insanity	2
Consumption	57	Jaundice	2
Constipation of the Bowels	2	Liver, diseased	6
Convulsions	25	Measles	4
Croup	2	Mortification	6
Dentition or Teething	9	Paralysis	6
Dropsy	9	Rheumatism	1
Dropsy on the Brain	10	Small-Pox	4
Dropsy on the Chest	1	Sore Throat and Quinsey	1
Fever	10	Thrush	1
Fever, Scarlet	7	Unknown Causes	2
Gout	1		
Hæmorrhage	1	Stillborn	23
Heart, diseased	1		

Decrease of Burials, as compared with the preceding week . . . } 288

METEOROLOGICAL JOURNAL.

Kept at Edmonton, *Latitude* 51° 37′ 32″ N. *Longitude* 0° 3′ 51″ W. *of Greenwich.*

Mar. 1834.	Thermometer.		Barometer.	
Thursday . 6	from 42	to 50	29 47	to 29·61
Friday . . 7	36	54	30 06	30·25
Saturday . 8	40	55	30 29	30·31
Sunday . . 9	40	55	30 32	30·34
Monday . . 10	41	56	30 37	30·40
Tuesday . . 11	40	57	30 41	30·42
Wednesday 12	31	53	30·42	30·35

Wind variable, S.W. prevailing.

Rain at times on the 7th and 12th; otherwise, generally clear.

Rain fallen, ·125 of an inch.

Charles Henry Adams.

NOTICE.

Mr. Robarts's paper shall appear, if possible, in our next number.

W. Wilson, Printer, 57, Skinner-Street, London.

THE
LONDON MEDICAL GAZETTE,
BEING A
WEEKLY JOURNAL
OF
Medicine and the Collateral Sciences.

SATURDAY, MARCH 22, 1834.

LIBRAR

LECTURES ON THE THEORY AND PRACTICE OF MIDWIFERY;

Delivered at the London Hospital,

By Francis H. Ramsbotham, M.D.

Lecture XXIV.

LABOUR.

DUTIES OF THE MEDICAL ATTENDANT UNDER NATURAL LABOUR.

Importance of ascertaining the presentation early in the labour.—It next becomes our duty to ascertain what part of the child presents; and this knowledge it is highly desirable for us to gain, if possible, before the membranes rupture. The *necessity*, indeed, of determining the presentation *so early* in the process, is denied by many obstetricians, and, among others, by one eminent authority in this town.

With such a dangerous sentiment I can by no means coincide; considering it imperative on every practitioner—provided the labour has made any progress—not to leave the patient's room until he has perfectly satisfied himself that it is the head which offers at the brim: for as occasionally transverse presentations occur—as, under such a malposition, it requires that a change in the situation of the fœtus should be artificially made before the birth can be perfected—and as that change is comparatively an easy operation previously to the bursting of the membranes, but is rendered one of the most difficult in surgery, if much time is allowed to escape after the evacuation of the liquor amnii—so it necessarily follows that the advocates of such a doctrine run the risk of lulling their disciples into a perilous and fatal security. It is certainly not always an easy matter to distinguish the presenting part at the onset of labour, by the first finger of the *right* hand—the mode of examination previously recommended—because, occasionally, it lies too high for detection in that manner: but it is seldom that some part of the child's body cannot be felt, if two fingers of the *left* hand be introduced into the vagina; since they will almost always command the whole cavity of the pelvis, and may be passed up to the very brim. Whenever, then, any doubt arises as to the position of the fœtus, it is much better to have recourse to this second expedient than to remain in ignorance of so material a point. For my own part, in practice I follow up this rule to the uttermost; and never rest satisfied until I have accomplished my object by one of these two modes of examination.

Discriminating marks of a head presentation.—The head is distinguishable by its large volume, its roundness and firmness, and by its constituent bones being intersected and separated from each other by open lines and spaces: for it is seldom, when the os uteri is dilated to the size of half a crown or a dollar, that we cannot detect some portion of a fontanelle, or one of the sutures. There is little chance of any other presentation being mistaken for the head, except the breech, and perhaps (as I have known happen) the side. The breech is most likely to be confounded with the cranium, because it possesses a larger circumference than any other part of the child's body, except the head; but it still differs from the head materially in its general size, and more particularly in feeling to the finger softer—not so resistant, but more *cushiony*: it is also more pointed, and possesses no structure resembling a suture or fontanelle. The principal discriminating marks of the breech, however—of which we shall speak more at length hereafter—are the anus and genitals. The only point of structure in the side which bears the least shadow of resemblance to the head, consists in the interosseous spaces between the ribs; one of which might possibly be mistaken for a cranial suture. If it were worth while drawing distinctive marks between these two parts, I might observe, that at the commencement of labour under a side presentation, the body of the fœtus seldom descends upon the brim, or into the pelvic cavity, so readily as when the head offers itself; the shoulder and breech being then supported by, and resting upon, the respective ilia. It is, therefore, generally quite out of the reach of the finger, until after the membranes have broken; and this of itself would be a suspicious circumstance. Secondly, the space between the ribs is wider than any suture of the head—unless, indeed, the fœtus be hydrocephalic; and, thirdly, we may usually detect more than one interosseous vacancy. Now as there are no two sutures in the cranium that run in parallel lines, if we can trace more than one such space by the finger, we can be at no loss to determine that they are both intercostal.

Having ascertained by the marks enumerated that the head presents, let us be contented with this information; it is by no means necessary, or desirable, at present, that we should perplex ourselves with endeavouring to make out the nice distinctions between the different parts of the head, so as to say exactly whether the face is directed to one side or the other; or whether the vertex presents, or any other point. It is sufficient that we have assured ourselves the head is at the brim; and we may take it for granted the vertex offers, unless, indeed, we can clearly distinguish the anterior fontanelle. In that case, we know the brow is the most depending part, and we may think it right, by counter-pressure, to attempt an alteration in the position of the head,—in the manner that will shortly be more particularly described,—before it has engaged in the pelvic cavity. And this recommendation is not given to impress you with the idea that it is enough to make a careless examination, but to prevent your doing harm by your attempts to distinguish such a difficult matter—harm by irritating the vagina and os uteri—harm especially by prematurely rupturing the membranes, which it is highly necessary for us to preserve whole: for in irritable habits we shall often find that the simple introduction of the finger is sufficient to cause an accession of uterine pain; and if—only intent on ascertaining how the head is situated, without reference to the preservation of the bag—we carry our finger round, within the os uteri, we shall most likely induce action; and the membranes will be more or less suddenly protruded against its extremity. The finger then passes into the centre of the aqueous cyst, out flows the liquor amnii, and irreparable mischief is done. Let us then—if we have clearly distinguished the head over the os uteri—presume that it is placed in the most favourable position for its descent into the cavity of the pelvis, until after the membranes have given way: —we may then proceed to examine the presenting part more accurately, and, provided the labour does not progress favourably and satisfactorily, it behoves us, in all cases, to be most particular in our inquiries as to whether the delay be owing to the malposition of the head; or to some other of the many and various causes that may retard its advance.

Information sought of the obstetrician after the first examination.—After the first examination has been made, the patient herself, and her friends, are always anxious to learn from the medical attendant if all be natural and satisfactory, and how long is likely to elapse before the labour will be terminated. With regard to the first question, if we have gained all the information which I require we should do, we may give a decided answer; but the second must be evaded. If we find the vagina distensible, the os uteri dilated, the head presenting, and the pains sufficiently active; we may reply, with a positive assurance, that so far every thing is favourable; that no case can afford a more auspicious promise than the one under our care; and that, therefore, we are warranted in anticipating a fortunate result: to the second question, let us not attempt to reply. Let us take it for granted, after such a positive declaration of good tidings, that *it* will not be repeated; and, as society is at present constituted, whoever obtains a plain, straightforward answer to one out of two questions, ought to consider himself fairly dealt with. But if the party we are addressing thinks differently,—which we shall most usually find the case,—and presses the subject again on our attention, let us tell them plainly, they ought to remain content with the honest declaration we have given, that the case is progressing as favourably as possible; that it is out of the scope of human knowledge, and consequently quite out of the the power of any human being, to say positively when the labour will be terminated. Any opinion we might form would be but a guess at the best; and it is not fit that we should trust an answer, which may involve such serious disappointment, to conjecture. If we were to make a promise, that the labour would be brought to a termination either at noon or midnight, or any other specified moment, we may be disappointed in two ways. It is very unlikely that it should end just at the period of time we have mentioned; it might be earlier, and then an inference might be drawn, that we knew nothing about the case: but it is also probable, that the time fixed upon will pass by, without our promise being fulfilled; it will then act most injuriously on the patient's mind: she loses confidence,—that loss of confidence is attended with dejection,—the nervous system is depressed,—and the process of labour is more or less interfered with. By making promises of this kind, then, we may be the means of producing a lingering, painful, dangerous, an instrumental, and perhaps a fatal case. Upon such trifles, sometimes, does the welfare of our patient depend!

Frequent examinations must not be made.—Frequent examinations should not be made during the first stage of labour. We can do no good by such a practice, after we have once gained the information we require: we cannot assist the patient; we cannot facilitate the birth of the child; we cannot dilate the parts; but we may do a great deal of injury; for we denude the vagina of that soft relaxing mucus which is designed by nature to protect it, and we run the risk of destroying the integrity of the membranous cyst: we may, therefore, predispose the parts to inflammation, and retard the dilatation of the os uteri itself. As, however, it is a common idea among women, that, under each examination, material assistance is rendered, we shall frequently be urged, during the first stage, —especially if the labour be rather slower than usual,—to remain in close attendance on the patient's person. Should this be the case, the finger may be introduced from time to time, with the greatest care and gentleness; more to pacify the patient's mind, and assure her she is not neglected, than with any other view beyond that of merely watching the progress of dilatation. The more rigid the parts are, the more do they require the softening influence of the natural secretion, and the more careful must we be to preserve it.

Impropriety of remaining in the patient's room; or returning home.—A question naturally arises, whether we shall remain in the patient's bed-room, or may with safety return home. It is not right that we should stay in the same chamber with the patient, during the first stage; because, as I before mentioned, there is a frequent inclination to pass urine and fæces; and she will be compelled to restrain that desire, as she will probably not like to be constantly requesting her medical attendant to retire. It is not necessary for us to remain with her; all that is required being, that we should overlook the process, and be at hand to act on any emergency occurring. Let us retire, then, from the room, and direct the nurse to inform us, if the pains become stronger, and particularly if the membranes rupture. In about an hour—should we receive no summons in the meantime—we may see her again, and may then, if we think it right, make another examination, to ascertain that the labour is proceeding satisfactorily. But, if it is not necessary for us to remain in the chamber, or by the bed-side, is it desirable for us to return home? In this question, the comfort and convenience of the medical attendant are much interested; and its answer must depend, in a great measure, on circumstances;—such as, whether it is a first or subsequent labour; whether the previous labours have been quick or lingering; how far the os uteri is dilated or dilatable, and particularly the distance of her residence. If it should not be above a few minutes' walk from one house to the other, it is not necessary that we should remain at the commencement of labour; but if the distance be great,—especially if the patient have had children before, and her labours have been quick,—even should the os uteri not be dilated more than to admit the point of one finger; provided the pains are following each other rapidly, it is better not to leave the house. As a general principle, I would say, that in all cases, as soon as the os uteri has acquired the diameter of half-a-crown, sufficiently large to admit the points of four fingers just within its disc, it is scarcely safe to be absent from the house for more than a quarter of an hour or twenty minutes at a time; because, although it may have taken five or six hours to dilate from a close state to the diameter of half-a-crown, the subsequent process of dilatation may go on so rapidly, that a few more pains may accomplish it, and the child may be expelled before we can arrive.

Some practitioners, (of whom Dr. Hamilton, of Edinburgh, is one,) recommend, that, although our presence is not required in the lying-in chamber, still we should not occupy ourselves in any employment or amusement, while we remain in attendance. They argue, that, inasmuch as we receive a consideration for our time and service, our whole mind should be entirely devoted to the patient's state, and in suggestions for her comfort. With this sentiment I entirely disagree. I grant that we ought to afford every necessary and proper attention, whether the patient remunerates us or not; but, in common cases, such an entire devotion of our mental faculties is not required; and we may produce a hurtful impression by our apparent anxiety. It is natural for a man, who is not of an indolent disposition, but whose mind is usually directed to some object, to become *fidgetty*, if his attention be not occupied by any pursuit; he will, perhaps, be pacing the drawing-room, where the husband is sitting; he will be looking first out of one window, and then out of another; first sitting on one chair, and then another;

first putting his hand into one pocket, and then into another; and he is, by this mere absence of manner, giving the husband an idea that he is more than ordinarily anxious on account of his lady. Such an impression will find its way through the crevice of the door to the lying-in chamber; it will reach the patient herself, and is likely to produce all the disadvantages which result from depressed spirits. Let him occupy himself, then, in some way that best suits his taste, either writing or reading; and there are few books he may chance to take up but will afford him amusement or instruction.

Not necessary that the patient should continue in one posture.—With regard to the general management of the patient, it is by no means requisite that she should continue in one posture during the first stage; she may relieve herself by changing her position on the bed, by sitting up, or walking about the room; for she will soon be able neither to sit, stand, nor walk, but will be compelled to take a definite position on the bed, from which she is not to move till after the termination of the labour.

Nourishment to be taken by the patient.—She may be allowed any bland, fluid nourishment, that she fancies; but it is very little she requires. We sometimes hear it said —especially in that rank of society which may be considered the third and fourth grades — " she must be very faint, poor creature; here is the middle of the day, and she has taken no breakfast;" or, perhaps, " her breakfast was brought up again; I dare say you will let her eat a mutton chop, Doctor?" Certainly not; digestion does not go on under the process of labour with sufficient energy, to assimilate solid animal food. A little beef-tea may be taken; but farinaceous preparations, or tea, or coffee, are much better; and we shall generally find that, inasmuch as the digestive process is almost suspended, or at any rate rendered very torpid, under labour, so there is very little desire for nourishment; and what is swallowed beyond the simplest fluids, is more in compliance with the entreaties of her officious friends, than from any appetite or inclination of her own.

DUTIES DURING THE SECOND STAGE.

The second stage of labour having commenced, we are summoned to the patient's bed-room, and told that the membranes are ruptured. She is very likely found reclining on the bed, and probably the pains are more urgent than they were before, or perhaps they are somewhat suspended. We now require to make another examination, because it is possible that the head may have entered the cavity, and may be soon expelled. Finding the head low in the pelvis—finding the os uteri almost entirely dilated, the membranes broken, and the pains strong, and coming on frequently, it is right not to leave the patient's room; but unless the perineum be somewhat on the stretch, it is not necessary for us yet to take our post exactly by the bed-side.

When, however, the head has come to press upon the external parts,—particularly when it has made its turn, and is beginning to extend the structures at the outlet of the pelvis, it becomes then our duty to take our seat by the bed-side, and never to move from our position till the child has passed. This we do for the purpose of supporting the perineum, in order to prevent laceration.

Mode of supporting the perineum. — The mode we take for affording the necessary protection is the following. We sit rather behind the patient than before her, and apply the palm of the left hand—guarded for the sake of delicacy, cleanliness, and convenience, with a soft napkin—steadily and firmly against the perineal tumor.

The kind of support we use, is not a forcible pressure; it is not a strenuous exertion that we make, but a passive support, that we afford. Placing our elbow on the bedstead, we render it a fixed point, and rather allow the head, covered by the thinned structures, to be protruded against our hand, than forcibly press our hand up against the head. This part of the duty of the obstetrical attendant is sometimes exceedingly irksome and fatiguing. Occasionally it will be found necessary for us to remain three or four hours by the side of the patient, without moving from our seat. I have sometimes thought it not safe to remove my hand for more than a minute or two together, during the whole of that time; and I recollect hearing Dr. Hamilton say, that he was on one occasion thirteen hours by his patient's bed-side, protecting the endangered structures. It is not to be wondered at that, under such an irksome posture, the hand should become numbed, and the whole person cramped; but we must put our personal inconvenience quite out of the account, when weighed against our patient's safety; and we must recollect, that the more rigid the parts are, the longer time they take in dilating, the more our assistance is necessary. We must not permit any length of time that we may have been so fatiguingly occupied, to rise as an excuse for our relaxing in this duty, but always bear in mind, that if the uterus act strongly, and the head be protruded suddenly, while the parts have not the advantage of the support we can afford, there is great danger that such a degree of laceration will occur, as perhaps to render the patient miserable for the rest of her existence.

Some practitioners recommend that we should use the bare hand, because, they say, we can then most perfectly ascertain where the perineum is thinnest, where it is most likely to give way, and consequently where it requires our chief attention. We can ascertain this point through the fold of a napkin quite as well as with the naked palm; it is most likely to give way at the fourchette first, if inclined to lacerate at all; but should any other part be the thinnest, and most in danger, we, nevertheless, can easily detect it.

Others, again, recommend that, sitting directly behind the patient, we should support the perineum with the palm of the right hand, while with the fingers of the same hand we make our observations on the descent of the head, which gives us the advantage of leaving the left hand and arm perfectly unemployed. This posture is very inconvenient, because we cannot well sit sufficiently behind the patient to use the hand with freedom and advantage; nor can we, in that manner, so readily ascertain the progress which the head is making.

Some, moreover, think it best that we should give no support to the maternal structures at all, but make steady pressure against the child's head each time it is propelled forwards, so as to retard its exit until the external parts are sufficiently dilatable to permit its passage without injury. And others still—more speculative than practical men—deny that any attention is necessary; they even declare it to be injurious. We often hear it objected, that laceration of the perineum takes place under the assistance of a medical man more frequently than it does when patients are delivered without that assistance. I am willing to confess, that with the advantage of the most judicious management, and the greatest care, such a laceration will occasionally occur; but that the event is rare, I am, from my own observations, quite persuaded. Under instrumental delivery it is, perhaps, not so uncommon; but under natural labour it is certainly very seldom met with. If, however, the fact be as stated, we may account for it in two ways. In the first place, when a child is expelled very rapidly, before medical assistance can be procured, it stands to reason that the soft structures must have been very lax, else they would have resisted the sudden passage of the fœtus, and the labour would have been more tardy; and the more lax the parts are, the more easily are they distended, and the less danger is there of their being torn. Again, women, when the child is likely to be born in the absence of the medical practitioner, refrain from making any voluntary efforts; and consequently the parts are more perfectly prepared for the child's exit, and laceration is less likely to occur. The knowledge of this fact would teach us to caution our patient in the strongest manner against using her own voluntary efforts, if there be the slightest rigidity: she cannot altogether prevent holding in her breath, and making some forcible exertions; but she should be directed and implored not to call the abdominal muscles and diaphragm into stronger action than she can possibly avoid. Among the attendants in the lying-in room, it is too much the custom to urge the woman, immediately that the pains of labour come on, to make use of all her voluntary powers, with the expectation that such efforts will produce a more speedy termination to the labour. The practice is most injurious, and should be reprobated in the strongest manner. In the first stage of labour, before the os uteri is dilated, this straining can be of no avail; it cannot further in the least the progress of dilatation, and tends only to wear the strength out prematurely. When the os uteri is entirely opened, indeed, and the expulsive pains are urgent, the auxiliary muscles much assist the birth; but even then it is desirable that she should not use great voluntary effort, for the reasons I have just given you.

By some, again, we are directed, as soon as the anterior fontanelle appears at the edge of the fourchette, to slip the perineum back over the face, by the extremities of two or three fingers pressed against it; that the tension of the parts may be more speedily relieved. I cannot conceive any practice more likely to occasion the very accident which it should be our studious anxiety to prevent.

Most women remain tolerably quiet, in one position, during the second stage of labour; but some are exceedingly irritable, tossing about in all directions, will not be advised, and can scarcely be restrained. It is our duty by all the means in our power, both of persuasion and gentle force, to prevent such a patient injuring herself by suddenly starting away from our assistance: for many cases have happened where a rupture of the perineum, under such circumstances, has occurred, to a frightful extent; and we may generally succeed by a little management. I have already mentioned, that the thighs must be drawn up towards the abdomen, and the legs bent a little back upon the thighs, the whole person lying on the left side; and the patient is usually placed so that her feet may rest against the bed-post; and in this way they become a fixed point, and keep the pelvis steady. We render the shoulders, also, another fixed point, so as to steady the upper part of the body, by tying a long napkin, or, what is preferable, a round towel, to the same bed-post, and desiring her to hold it in her hand. We tell her, when a pain comes on, to press with her feet against the bed-post, and pull gently at the towel, cautioning her against straining violently. The consequence is, she so fixes her person, that it is almost impossible for her to jump away suddenly, or recede to any distance from us. Independently of this little manœuvring — when the head is in any degree extending the vulva — the nurse must be required to raise the right knee to some distance from the other, by which means the thighs are separated, and an increased facility given to the exit of the head through the external parts, as well as some control exercised over the patient's movements. It is very possible that the nurse (cunning enough to know the length of time she may perhaps be required to remain at her post), may wish to substitute a pillow for her own services, and persuade you it will do equally as well. For four reasons the pillow must be objected to: it increases the heat of the patient's person, already, perhaps, profusely perspiring; it does not afford a support sufficient to prevent the legs from being squeezed together; in the acmè of pain it will often slip away from between the knees, and we lose its advantage just when we require it the most; and, lastly, it can be of no service in restraining the woman in one posture. By such management, then,—which is useful more or less on all occasions,—we prevent an irritable patient jumping away from our support, and often preserve her from injury.

Dr. Denman tells us, that the greatest degree of laceration which ever occurred to him was occasioned by the patient suddenly withdrawing herself out of his reach, and beyond the possibility of his giving any support to the part, at the instant the head was passing over the perineum.

This justly celebrated physician, and highly benevolent man, has also noticed it as very remarkable, that none of the ancient writers advise any method by which this accident may be prevented, or any means to be used for its relief, excepting such as were generally recommended for inflamed, ulcerated, or fistulous parts. He states, indeed, that it is mentioned by Eros, who lived in the thirteenth century; and an awkward method of preventing it recommended. He draws the inference, that this silence must either have arisen from its being rarely met with, or from its being thought of little consequence when it did happen; and he seems to incline to the latter opinion, on the grounds, that the older writers on midwifery lived in countries where polygamy was permitted, and where the death or infirmity of one wife was of little importance to him who had many. But since the wide diffusion of the benign spirit of Christianity, one wife only being allowed to one man, any disease or infirmity which might render her person less agreeable to him, must become of infinite consequence to their mutual happiness; and that therefore the attention of scientific men was directed to the subject.

This explanation is exceedingly ingenious, and may be in a great part true; but I am inclined to think that the women themselves were less predisposed to this accident, partly from natural constitution, partly from the relaxing influence of the warm climate in which they resided, and partly — and perhaps principally — from their beginning to bear children earlier in life than is usual among the civilized nations of the present day: and it cannot be disputed that our late marriages are so far a departure from the intentions and ordinances of nature.

The extent of this accident varies much in degree, from a simple laceration of one or two fibres at the anterior edge of the perineum to a rupture of the whole organ, the destruction of the sphincter ani, and the conversion of the two canals, the vagina and rectum, into one common cavity. The rent generally commences at the fourchette: at other times it will begin in some portion of the inner membrane of the vagina, and extend anteriorly to the edge of the perineum, when it will be again continued back to the point corresponding with the origin of the laceration within, or will even pass beyond it; and more rarely the head is protruded through the substance of the perineum itself, forming a fresh aperture, by which it escapes, leaving the fourchette entire. Of this latter variety I have only seen one instance; and on that case my opinion was requested in consultation, a few days after the labour. It was evident there, that the child had not passed through the vulva, but through an adventitious opening, and the attendant was perfectly aware of that circumstance at the time.

Professor Burns asserts, that "in every case the fourchette and a small part of the posterior surface of the vagina are lacerated, though the integuments of the perineum remain sound." To this opinion I can by no means subscribe. I know that a deceptive appearance of lacerated surface often presents itself, in consequence of a small fold of the relaxed internal membrane of the vagina falling down over the edge of the perineum after delivery; which I have also seen mistaken for a slight rent, from its florid, vermilion hue; and it is not impossible that this cause of deception may frequently occur. At the same time I have no doubt that in many cases a trivial laceration takes place, which is never either known to the patient, or suspected by her attendant.

Protrusion of the head.—Varying much in time, varying much in the intensity of agony which is suffered, and in the number of pains that occur, the head is at last protruded, in the manner before noticed. It is most likely the child may attempt to gasp the moment the head is expelled; and on this account it is right to wipe its face immediately with a clean napkin (of which necessary articles we always require to have a store close at hand, upon the bed), lest in the first inspiration some of the mucus which may hang about its lips, or other moisture, should be inhaled.

Coiling of the funis around the neck.—I have already mentioned, that some little time usually elapses between the expulsion of the head and the pain that is to expel the shoulders; and this interval may be usefully employed, after the face is cleaned, in making an examination of the neck, to ascertain whether a fold of funis may not possibly be surrounding it. It frequently happens that there is one; sometimes there are two, and occasionally three or four folds of the navel-string coiled around the neck; and if it were not liberated, it is very possible that the pain which expels the shoulders might cause the placenta to be dragged away from its attachment, to the great peril of the mother, from hæmorrhage, or perhaps from inversion of the uterus. But the chief danger is to the infant. If on its expulsion the cord be drawn tightly around its neck, the circulation through the funis will be arrested by the compression of the vessels, and the same compression may also close the trachea to such an extent, as to prevent the reception of air into the lungs. Thus the double source of life being cut off at the same time, strangulation must be a necessary consequence. I was once witness to the death of an infant under such circumstances. When I arrived at the patient's house, I found the child lying dead near the external parts of the mother. The funis umbilicalis was twice coiled round the neck, and the child had been deprived of the advantage of the placental circulation, and of the power of breathing at the same time, and by the same means. There was a deep livid ring encircling the throat, produced by the pressure the funis had caused; and it was evident from this mark that the infant was alive at the moment of its birth. It is a most interesting and instructive case, not only obstetrically and physiologically, but particularly with respect to forensic medicine. If this birth had taken place under suspicious circumstances, the mother not being a married woman, it is very possible that a charge of murder might have been founded on the appearance of the mark round the neck; as it could not be distinguished from the effects of a cord, applied with the intention of destroying life.

The best way to free the funis from this awkward situation is by drawing down the loop, and passing it over the child's head, by which means we liberate it entirely, and it is no longer an impediment to the expulsion of the shoulders. But it occasionally happens,—especially if the funis be more than once coiled round the neck,—that it is not sufficiently long to allow its being pulled over the head: we may then keep the loop distended with our fingers, until the shoulders are expelled, and they must be allowed to slip through it. This is almost as easily carried into effect, in all cases, as drawing the funis over the head; but of the two methods I prefer the first.

I am inclined to think that we shall not frequently find the funis twisted round the neck of the child in the uterus; but that it is produced by the cord gravitating to the neck of the womb in a coil, and by the head of the child slipping through it as it is expelled; because in all the dissections that I have made, I have never found the funis encircling the child's neck in the way it is so frequently met with under labour.

Directly the head is born, it is usual with some one of the attendants to offer to the medical practitioner a close flannel cap for the infant, which he is expected to apply as soon as a convenient opportunity occurs; and this is done under the idea that, of all parts of the body, the head is most susceptible of the action of cold. As far as I know there is no good ground for this assumption; but inasmuch as the custom is dictated by a very universal prejudice, it is as well to give way to it, unless other more important duties require immediate attention: for should this very necessary precaution, as it is supposed, be omitted, and the profferred means of protection be rejected with indifference or scorn, it is more than probable that any little ailments the child may be subject to during the first few weeks of its extra-uterine existence, will be attributed to the neglect shewn in this particular.

Support of the perineum during the expulsion of the body.—Although the shoulders of the child take up less room than the head, and although the parts, having been previously distended by the passage of the larger substance, generally easily admit the shoulders—provided the child be of normal shape—still it is desirable that some support should also be afforded to the perineum while the body is passing, even after the head has made its exit. Having wiped the face, then, invested the skull with the cap, and made an examination to ascertain that the funis is not twisted around the neck, we may again place the left hand on the perineum, while we direct the fœtal body rather forwards,—in correspondence with the axis of the pelvic outlet,—and receive it with the right.

Rapid extraction of the child, after the exit of the head, improper.—I must here caution you strongly against extracting the child rapidly after the head is born. It used to be the practice, and is still continued by some obstetricians, to surround the neck with the thumbs and fingers of both hands, and forcibly extract the body the moment the head is in the world, for the purpose of liberating the woman from pain, and terminating the delivery as speedily as possible. Such practice is attended with double danger: great chance of injury to the child, by the tension of the neck; and no small probability of hazard to the mother, by the uterus being prematurely emptied. It is thus left in a flaccid state; the stimulus which previously disposed it to contract is suddenly taken away; that disposition ceases, or is suspended; hæmorrhage is induced; a necessity probably arises for the artificial removal of the placenta; and incalculable mischief is the consequence. Those persons who commend such meddling interference, and who estimate the skill of the obstetrical attendant by the rapidity with which he can extract the body after the head is born, base their opinion on most dangerous grounds.

When the shoulders have passed, the parts require no further protection; the breech and legs are usually soon expelled, with slight suffering and little hazard to the maternal structures.

The child, then, being entirely in the world, it must be slowly removed a little distance from the mother's body, not more than to the extent of four or five inches, and withdrawn from beneath the bed-clothes, the woman's person being still left perfectly covered and concealed. I have already shewn you that the funis umbilicalis varies exceedingly in length, and that sometimes its measure has been known not to exceed half a foot. Now, should the cord be unusually short, and should we hastily draw away the infant to some extent, we shall "make a pluck" at the placenta; and we run the risk of tearing it away from its attachment, or, perhaps, of even inverting the uterus. If we find the cord sufficiently long to permit the further removal of the child's body, we may place it more completely under our command, before we proceed to secure the vessels and separate it; the mode of doing which I shall describe at the commencement of the next lecture.

AN ESSAY

ON MEDICAL REFORM.

By Dr. Barlow, of Bath.

[Concluded from p. 905.]

3. *Adaptation of the Remedial Arrangement.*

We now approach the point which can alone give any interest to the foregoing discussion, namely, the practical measures which the present exigency requires, and by which real amendment of the profession can be effected; and it is presumed that we enter on its consideration with clearer views, from the several expositions given in the foregoing pages.

The question to be solved is, how can a just and suitable organization of the profession be adapted to the present state of its institutions, so as to introduce effectually all necessary reforms, without injury to the good which these institutions, with all their imperfections, unquestionably comprise? It may suit declaimers to deny that any good attaches to them, but the well-judging part of the profession will pause ere it accept such assertion for proofs, and will look more deeply ere it sacrifice, at the shrine of reckless presumption, those demonstrable benefits which these institutions have conferred, and which the literature, science, and liberal cultivation of the higher classes of the profession, derived from these institutions, must, as they have heretofore done, ever impart to it.

We proceed, then, to consider, in this final section—1, How the state of the profession actually existent has arisen; 2, What are the errors and defects to which its acknowledged inefficiency is ascribable; and, 3, By what specific measures can the legislature now interpose to give the profession a legal organization, suited to the advanced state of medical science, and calculated to promote both the well-being and harmony of the profession, and the best interests of the community.

1. The profession, as now constituted by law, consists of three departments, namely, physicians, surgeons, and general practitioners, each department having a corporation specially allotted for its superintendence. In order to understand clearly the nature and functions of these corporate bodies, it is necessary to review respectively their origin and pro-

gress, so as to mark how far they are capable of fulfilling the ends of their institution, and in what respects they fail.

Physicians.—The first act of the legislature relative to physicians that is worthy of notice, is the 3 H. VIII. c. 11, which prohibited the practice of physic or surgery within the City of London, or within seven miles of the same, except by such as were admitted by the Bishop of London, or by the Dean of St. Paul's, after due examination, a penalty being annexed to unauthorized practice. This statute is unrepealed; it was passed in in 1511.

In 1518, a charter was granted by Henry VIII., by which the present College of Physicians of London was constituted; and in 1522 this charter was confirmed by statute, namely, the 14 and 15 H. VIII. c. 5.

In 1540 a supplementary act was passed (32 H. VIII. c. 40), conferring additional privileges, and ordaining some slight changes.

One more act relative to this College was passed in a later reign, namely 1 Mary, Sess. 2. c. 9. (1553), by which the previous charter and statutes were confirmed and enlarged.

The provisions of these several instruments are too well known to need a particular account of them in this place: all who wish to examine them may see them conveniently collected in Willcock's Exposition of the Laws of the Medical Profession, published in 1830. It is enough here to remark, that they afford, either in the letter or the spirit of their provisions, but little sanction to the course of procedures which the College of Physicians have undeviatingly pursued from that period to the present time. Other royal charters have been granted to this College subsequently—by Eliz. in 1565; by James I. in 1618; and by Charles II. in 1663; but they are deserving of little notice, for never having received legal confirmation, they cannot supersede the law as established by the statutes of Henry and Mary.

The object of the original charter, and its confirming statutes, obviously was to incorporate in one association all members of the same faculty who should prove their qualifications in the way prescribed—all such being by their admission entitled to equal rights and privileges. The College, however, thought proper to view their powers in a different light, and, through successive by-laws, wholly incompatible with the statutes, inasmuch as they directly abrogate rights conferred by the statutes, they have narrowed the College, so as to limit its powers to a small body of Fellows, the more numerous and equally competent Licentiates being suffered to exercise no rights as members of the body corporate, and only receiving permission to practise their art on payment to the College of heavy fees.

Some account of how this body has executed the trust confided to it may be seen in a paper published in the sixteenth volume of the Edinburgh Medical and Surgical Journal. The subject is too copious to allow of its being dwelt on here, and the usurpations of the College are now far better known than they were when the paper referred to was written.

What appears most extraordinary in contemplating the date of the charter and statutes, the vast advance which medical science has since made, the improvement of medical education, and the great changes that have occurred both in the profession and in society, is, that no attempt has been made on the part of this College to amend their statutes, or procure from the legislature an extension of their powers, so as to render these more adequate to the altered and extended functions which it fell within their province to discharge. The supineness manifested is at first view most unaccountable, especially when it is known that the College has long been fully sensible of the inadequacy of its powers. The only explanation the case admits of is, that the College was well aware that in seeking from parliament any extension of its powers, some account must be rendered of the mode in which the previous powers had been exercised, and that conscious that this exercise would not bear a scrutiny, and reluctant to bring into hazard authority so long possessed, they shrunk from examination, and preferred abiding by old and inadequate laws, rather than forego the unauthorized powers which they had been accustomed to exercise. In referring to the procedures of this College, my wish is to dwell on the facts alone, refraining from all imputation of moral culpability on the part of its members. However erroneous or indefensible their measures, they may have been honest in intention. They probably thought that the interests of science and the profession required them to maintain a high standard of qualification, and that their measures were calculated to attain this end. The principles of political science, too, being, at the institution of this College, very imperfectly understood, its members might not have been aware of the tendency of their measures to defeat their own purpose. This purpose was to keep the profession select; but in pursuing it, they narrowed their body, so as to render its members insufficient for the increasing exigencies of the public, and thus forced into existence a class of unauthorized practitioners, to fill the void left by a too scanty supply of the authorized.

Had the College, abiding by the clear purport of their own charter and statutes, admitted within their pale all physicians that were regularly educated and competently qualified, they would have supplied the public wants, so as to leave little room for those encroachments which the surgeons and general practitioners have so successfully made on the province of the physician.

It is not yet too late to redeem some part of the lost ground, by giving to physicians generally, through appropriate incorporation, such free and equal rights as would promote the efficient exercise of their faculties and acquirements, and thus enable them to sustain the competition which they have to encounter. But if the means of doing so be much longer delayed, the class of physicians will rapidly decline, to the great injury of all that is enlightened or liberal in the profession.

Beset as the physician's department is with disadvantages, men of liberal education and high attainments will cease to enter it, and it is scarcely possible that either surgeons or general practitioners could adequately fill the void which its extinction would leave.

Surgeons.—Respecting the surgeons, it is needless to go farther back than the year 1745, when, by an act of parliament (18 Geo. II. s. 15.), the surgeons were disunited from their colleagues the barbers, and formed into a separate and distinct corporation. In 1800 the present College was founded by royal charter, 40 Geo. III.; and in 1823 a supplementary charter (3 Geo. IV.) gave some further privileges, and altered the denomination of officers from Master, Governors, and Court of Assistants, to President, Vice-Presidents, and Council.

Apothecaries.—In 1616 the apothecaries were first formed into a distinct corporation by charter (13 Jac. 1.), which separated them from the grocers. Until 1815 they were by law only dispensers of medicine; and though extensively engaged both in medical and surgical practice, they were not recognised as practitioners in either until they obtained the act of parliament, 55 Geo. III. c. 194, from which their present powers are derived. These powers are far more complete than those possessed by either of the other chartered bodies, and the extent and efficiency of them are such, as to give to the Apothecaries' Company a legalised predominance, which it would be difficult to vindicate on the ground of any superior capability for discharging the functions which they are require by this statute to exercise. The supineness of both Royal Colleges left the apothecaries free and unopposed in obtaining any powers they desired; and the consequence is, that so far as legal rights are concerned, they may set both at defiance. Their statute empowers them to qualify their licentiates as practitioners in physic, thus superseding the College of Physicians in what might have been the exclusive dominion of this body, if it had not disdained a class so humble: while by obtaining exclusive possession of pharmacy, they have virtually rendered the diploma of the College of Surgeons of no avail as an authority for general practice. Nine-tenths of those who still seek the surgical diploma are compelled to engage in general practice, which comprises pharmacy, and this branch they can embrace only by becoming members of the Apothecaries' Company also. Now as the Apothecaries' licence alone qualifies for full practice in physic, surgery, and pharmacy, it is impossible that the double qualification will be sought many years longer; and, in consequence, the College of Surgeons must in no long time sensibly decline.

If a well-qualified general practitioner be furnished, it is perhaps immaterial to the public from what source he is derived; but it does seem strange that the mode of qualifying him should be by engrafting physic and surgery on pharmacy, rather than by authorising the annexation of pharmacy to surgery and physic.

It is scarcely necessary to notice a later act (6 Geo. IV. c. 133.), passed for explaining the 55 Geo. III., for it was enacted for a year only; it expired in August, 1826, and it has not been revived.

After the foregoing exposition of facts, there can be but little difficulty now in detecting the errors and defects of a system of polity incongruous and inefficient. In each department there is much to correct; and the whole requires to be so organized, that the several parts shall be in harmony with each other. The only remaining question to be answered, then, is—Of what species of practitioners should the profession consist? and this being decided, What powers and protection should the legislature afford them?

At the risk of having imputed to me an undue leaning towards my own branch, I must nevertheless plead for the continuance of physicians as a component part of the general profession, and a class distinct from every other; and, judging as I do on this subject, I would deem the extinction of this class the greatest calamity that could befal the profession—one which could not fail in time to reach in its effects even that class which is now desirous of its downfall. Whence has physic derived the dignity which, in despite of the many evils that have through its misgovernment beset it—still attaches to it—but from the liberal cultivation, literature and science, of the well-educated physicians? The same means which have elevated the profession to its present rank, are equally necessary for upholding it; and is it to be imagined that the high character assigned to it by such men as Parr and Blackstone will continue to be merited if there are only general practitioners to support it? It is no indignity to these gentlemen to say, that as a body they are utterly incompetent to maintain the elevation which the profession has through the higher classes reached. Destined as they are for the exercise of laborious and arduous duties, they are far better employed in the few years allotted to their professional education in acquiring the knowledge which is to fit them for their special career, than they would be in cultivating more extensively the higher faculties of their intellects. That they should, in addition to their professional acquirements, cultivate these faculties to any extent capable of much enlarging even their own science, still less of shedding any bright lustre on the profession to which they belong, is, except in very rare instances, utterly impossible; and if this lustre were dimmed by the extinction of that class from which its brightness has been derived, would not the whole profession feel the proportionate decline in general estimation that must inevitably ensue?

Abstractedly, then, from all other considerations, the class of physicians deserves to be maintained, were it only for preserving the connexion of the profession with general literature and science, without which it must lose the high distinction which has so long and so steadily graced it, and degenerate eventually into a sordid trade.

But there are other grounds on which the continuance of this branch of the profession, as a distinct class, can be fully and successfully vindicated. It *has* existed as a separate branch for centuries, and has maintained its ground in public estimation, notwithstanding the want of all adequate protection from that corporate body which was instituted expressly for its support, and against the formidable competition of the surgeons and general practitioners, which has, for the last half century, been progressively and rapidly increasing. A branch which could retain its hold of public favour under such neglect and opposition, must have some inherent qualities for benefiting the public, to account for its still possessing any portion of their regard; and on this ground alone it ought not to be lightly set aside.

A further justification of physicians forming a distinct class, exists in the well-established fact of the large proportion, in the aggregate of human diseases, which the medical bear to the surgical. Whence it follows, that though all surgeons must of necessity practise as physicians, all physicians need not be practical surgeons. The public has ample need of physicians in the more limited sphere of practice; and so long as the public see an advantage accruing to them from this limitation, and hold in estimation the literature and science with which the cultivated physician is imbued, there seems no sufficient reason for extinguishing this class, or for causing it to merge in one of inferior degree.

On the same principle may be justified a class of surgeons as a distinct branch; who, though they must practise physic, and should be fully qualified by their education so to do, need not necessarily comprise pharmacy, or become identical with the general practitioner. So connected, however, are the provinces of the surgeon and the general practitioner now become, both in education and practice, that it is a solecism in legislation to require pactitioners so closely allied to emanate from different sources.

General Practitioners.—It is obvious, from what has been stated in the earlier pages of this essay, that physicians and surgeons combined do not adequately supply the public wants, and the exigencies which have called into existence an additional class, and procured for them legal recognition, must, by this time be sufficiently clear. To such exigencies the legislature mnst contend; and in yielding to them, by passing the Apothecaries' Act of 1815, it only discharged a bounden duty. If this duty has not been performed in the best manner, the fault is chargeable neither on Parliament nor on the Apothecaries' Company, but on the two Royal Colleges; both of which, in this respect, failed egregiously in the duties which they were bound to perform. A very little observation would have shewn them the revolutionary change which the profession was daily undergoing; a slight knowledge of the elements of political science would have sufficed for reasoning justly on the facts so abundantly submitted to their view; and, if a vain pride had not engendered an inveterate and senseless contempt of pharmacy, they would have seen the necessity of recognizing this as an essential element in the qualification of the general practitioner, and have lent their aid to supply a want that could no longer be resisted.

The final question becomes at length reduced within very narrow limits: what are the special reforms which the legislature, by its fiat, should now effect?

If physicians are to continue as a separate class (and that they will ever be displaced, or amalgamated with other classes, I have no apprehension), they should still emanate from the Universities, and from no other source. That the primary qualification should ever be derived from a College of Physicians, I hold to be a proposition at variance with all sound principle, as I hope by and by to render clear. The standard of qualification ought to be high, both in respect of professional and general knowledge; and evidence of ample and liberal cultivation ought to be enforced. But the standard should not be too high, nor exceed what practical utility requires; and in determining it, the guidance followed should be that of sound experience, not of hypothetical speculation. In the first place, it should not be so high as, by the time, cost, and mental labour necessary for attaining it, to circumscribe within very narrow limits the class of practitioners to which it applied; for the effect would be precisely that of excessive duties in commercial traffic—namely, to drive out of the market the lawful article, and substitute an inferior contraband. If the department of physic be of any value, and worthy of being maintained as supplying a marketable commodity, the error must not be committed of enhancing its wares so much by the cost of production as to render them unsaleable; thus betraying into ruinous speculation and eventual disappointment, those who, in accordance with, and on the faith of, legal injunctions, and incited by a laudable ambition, should give a preference to this branch. On dispassionate consideration, there seems to me far greater hazard in fixing the standard too high than too low. In the first place, a very high standard, however imposing it may appear to the speculatist, must, in a great degree, be inoperative, from the mere inequality of human intellects. All have not the intellectual powers capable of attaining a very high standard; and with the more moderate intellects it must fail of effect, whatever the cost of time and labour at which they endeavour to reach it.

Another reason against fixing the standard too high, is, that it is quite unnecessary to do so. Medium attainments in general literature and science, such as befit the scholar and the gentleman, being ensured by adequate provisions, all higher cultivation may be safely entrusted to the incitement which interest and ambition are sure to give. They whose mental powers are capable of higher exercise, are little likely to leave such powers dormant; and inferior minds would profit little by such cultivation being forced on them. In judging this subject, too, the relative situation which the physician must henceforward hold in the profession, should be taken into account. All monopoly must, in the present day, give place to the sounder policy inculcated by principles of political science, and which is rapidly moulding all our institutions into new forms, and establishing them on a sounder basis.

Without special protection, or exclusive rights, physicians can only hope to compete with their rivals in practice through the superiority of their cultivation and intellectual attainments; and, thus incited, they will be little likely to neglect what must to them be their main support. It is only by keeping in advance of the general practitioner, in general literature and liberal science, that they can have any counterbalance to the many advantages which the latter enjoys; and that they will neglect what self-interest so obviously dictates, is little to be apprehended.

Whatever the standard may be, or the ordeal by which the candidate for a medical degree is to be tried, this, when once passed, should be conclusive, and no further trial or examination by chartered companies should be permitted. A degree being once obtained on full trial from a competent University, there can be no pretext for the person whose competency is thus avouched being subjected to further tests; and least of all is it fitting that the right of retrying him should be vested in those who are to be his future rivals and competitors in practice. If incompetent, his original degree should not be given; and if competent, this degree should entitle him to enrolment in any corporation of physicians that might exist: the only function required from such a body, in this respect, being that of verifying the academic degree.

Some incorporation of physicians is indispensible, for conducting the general government of the collective body; but its functions should never extend to conferring the primary qualification, as has of late been inconsiderately proposed, and as has, to a certain extent, been hitherto practised by the College of Physicians. The main function of the physicians' corporation should be to verify the degrees of applicants, and, on these being proved, to enrol the individuals as members of the body corporate, entitled by such enrolment to all the rights and privileges conferred by the statute of incorporation. In such a corporation, no gradations of rank or distinction could be needed, save what the formation of a suitable executive would require; and this executive should be elected by the commonalty. Convenience would require this elective franchise to be exercised by the members resident in London, or within a certain distance of it; and in order to ensure a sound discretion in the exercise of it, it might, with every propriety, be limited to members of a certain standing—say those who had been members for five or seven years; which would guard effectually against those sudden incitements and the unreflecting zeal by which younger members would be most likely to be affected. If the members of the executive council were elected by the free choice of the commonalty, there seems no valid reason why the appointment should not be for life; from which, greater steadiness in the government of the College would result, than if such elections were periodic. So few and simple are the ordinary functions of a College of Physicians, constituted as it ought to be, and restricted in its powers of doing evil, that frequent change of the individual governors could not be necessary, while the agitation and intrigues to which it would give rise could not fail of proving a positive nuisance. An adjustment of the present College, which should open its doors so as to admit all who are entitled to its protection, equalize its members, and give to these the privilege of having some voice in the appointment of the executive council, would be all the reform that this branch would need. All medical Graduates of British Universities should have the right of admission to the commonalty, on proving their degrees; and in order to ensure a general equality of qualification, a definite standard of education should be furnished, to which Universities granting medical degrees should be required to conform.

Equalization of qualification being thus insured, all pretext would be removed for making distinctions among physicians, by gradations of Collegiate rank, which only minister to unseemly pride, and confer no public benefit whatever. Election to the Council would afford sufficient opportunity for conferring merited distinction on those more highly-gifted individuals whom the commonalty would wish to honour; and to the hands of men so distinguished, and so chosen, the affairs of the College might with full confidence be entrusted.

Some provision should exist for granting admission to physicians of foreign universities, who might settle as practitioners in this kingdom.

The only remaining purpose of the legislature would be, to make suitable arrangements for the qualification and protection of surgeons, and of general practitioners; and so interwoven are the procedures of the College of Surgeons, and of the Apothecaries' Company now become, that it is impossible to separate the consideration of them. To a certain extent their functions are identical; the main purpose of both being to supply the public with well-qualified general practitioners. Why two corporate bodies should exist for effecting this very simple purpose, it would be difficult to assign any satisfactory reason, while much incongruity and inefficiency may be traced to their separate pursuit of it. The College of Surgeons cannot now accomplish it completely in any instance, having suffered the right of combining pharmacy to be wrested from them by the Apothecaries' Act of 1815; and as yet the Apothecaries' Company have not rendered the surgical attainments of their licentiates so perfect, as to make them wholly independent of the College of Surgeons. Yet the dependence is more a matter of feeling than of legal necessity; and it would speedily cease, if the present state of the profession were to continue. As yet the College of Surgeons exists, and has some hold on public favour; and the Apothecaries, though anxious from the best feelings to perfect the qualifications of their licentiates, are slow to complete their surgical competency, lest they should seem to trespass too much on the province of the surgical College. And here we see a clear instance of the injury resulting from a disjointed system, a similar one being afforded by that of the Surgeons in their relation to the College of Physicians. It was necessary that surgeons should practise physic, and a matter of notoriety that they did so; and yet the College of Surgeons insured no competency of knowledge for such practice in their licentiates, because they were not prepared to avow the practice, or to profess openly this encroachment on the sister College. In like manner, the general practitioner required to be qualified in surgery—which is effected, not by the completeness of surgical qualification required by the Apothecaries' curriculum—but by young men actually becoming, by separate and distinct courses of education, examinations, and licenses, first surgeons, and next apothecaries!

How such an anomaly as the co-existence of two corporations so analogous in their purposes, has sprung up, has been already explained. For the confusion thus introduced into the medical polity of the nation there seems now no remedy, but that of consolidating both these bodies in one corporation. By such a union, simplicity of organization would be restored, and far greater efficiency would result, than the separate and conflicting bodies can ever realise. By the united body every requisite function could be fully and effectually performed; and candidates for admission would be spared the undeniable evil of undergoing a double qualification in order to obtain it.

It would be necessary, however, in order to supply the wants of the public, and render the cost of qualification proportionate to the probable amount of remuneration, that there should emanate from this united body two classes of practitioners, one more expensively educated, and more highly qualified; and this class might confine its practice to surgery and physic: the other adequately qualified for the exercise of its duties, though at less expense,—and combining pharmacy with its other practice. From the higher class, hospital surgeons and teachers of anatomy and surgery should be exclusively taken; and a provision should exist, by which members of the second class should be capable of ascending to the first, whenever it should suit their purposes or inclinations so to do. The petitions submitted to Parliament last session, and the Bill founded on them, suggest that some provision should be made, by which physicians desirous of becoming general practitioners, should be capable of qualifying themselves, by such trials as, leaving unquestioned their knowledge of physic, should test only their acquaintance with surgery and practical pharmacy, these not being attested by their academic degree.

The government of the united corporation should be such as has been already proposed for a College of Physicians; that is, the body should consist essentially of a commonalty only, and an executive council should be elected by the commonalty. The elective franchise should belong to the first class only; and in this there would be no injustice, this class being open to all who choose to enter it; and the second class taking a different rank, in order to suit their own purposes. A member of the second class, ambitious of higher honours, would have only to qualify himself, by conforming to those regulations provided for the first class, to entitle him to a participation in their privileges. Whatever is arranged respecting physicians, surgeons, and general practitioners, respectively, should apply equally and similarly to each division of the kingdom; and similar institutions for all should exist in the three capitals of London, Edinburgh, and Dublin. Among these co-ordinate bodies mutuality of privileges should be established, so that any individual changing the scene of his practice to another division of the kingdom, would have only to enter *ad eundem* in the corporate body belonging to his new residence.

In fine, it would be very necessary that, whatever the government be under which the several departments of the profession are placed, some means should be devised for bringing them into combined deliberation, whenever subjects should arise to call for such collective counsel.

Provision should be made, too, for qualifying as midwifery practitioners, all, whether physicians, surgeons, or general practitioners, who should wish to embrace this branch of the profession.

CASE OF

ABSCESS IN THE ILIAC FOSSA AND PELVIS

Communicating with the Colon and Uterus—Obliteration of the Femoral and Iliac Veins.

To the Editor of the Medical Gazette.

SIR,

SHOULD you think the accompanying case worthy of insertion in your journal, I request you will give it a place at your convenience.—I am, sir,

Your obedient servant,
GEORGE GURSHAM, M.D.

3, St. Andrew's-place, Regent's-park,
March 10, 1834.

A woman, about 36 years of age, of a healthy constitution, was confined of her seventh child the first week in October. Nothing untoward, I understood, occurred during her labour, but the expulsion of the placenta was followed by considerable hæmorrhage.

A few days after her delivery, she complained of pain in the right iliac region, for which (after it had continued about a fortnight), she consulted a surgeon, who ordered leeches, fomentations, &c. She remained under his care about five weeks, at the end of which time she was better, but still somewhat lame. About a week after this, towards the beginning of December, *her leg failed her more*, as she expressed herself, the pain in the region of the pelvis increased, and she was compelled to keep her bed.

She consulted some one else at this time, but I am not aware what treatment was pursued during the fifteen or twenty days he attended her. For three weeks after this nothing was done, but she was quite unable to leave her bed. Application was now made to get her admitted into the hospital; but being considered as labouring under pthisis, she was not received.

I first saw the patient about the latter end of January, and found her in the following state:—

Great emaciation; lying in bed on the left side, with the right thigh carried up over the abdomen, so as to bring the limb into the greatest possible degree of relaxation; no pain when perfectly at rest, but any attempt to extend the limb caused intense suffering, and she could only bear it to be brought to the state of demi-extension.

There was no tumor nor discolouration of any part of the limb, but the whole extremity was œdematous, somewhat firm, but still pitting under pressure. This symptom occurred about a fortnight ago.

The tongue is somewhat dry, reddish, and smooth; has severe diarrhœa; no swelling nor tenderness under pressure, in any part of the abdomen. Could take simple food tolerably well. Slight cough, with trifling mucous expectoration. I could only examine the anterior part of the chest, but here it gave throughout a good sound on percussion, and the respiration was every where audible and natural.

The skin was hot and dry; exacerbation of fever in the evening, followed sometimes by sweats; pulse 120, small.

On inquiry, I learnt there was a discharge of puriform fluid *per vaginam*—some days more copious than others. She has had difficulty in passing urine, but that symptom has disappeared.

On examination *per vaginam*, I could not detect any disease of the uterus or vagina; pressure, however, on the right side of the latter canal caused great pain, and I thought there was an obscure sense of fluctuation.

From the previous history and present symptoms of the case, I was of opinion that an abscess had formed in some part of the pelvic cavity, and which had probably made its way through the uterus or vagina. The œdema occurring in one extremity alone, led me to believe in the existence of some obstruction to the course of the blood through the veins of the limb.

I saw no reason for believing in the existence of phthisis pulmonalis.

I saw this poor woman from time to time; the symptoms remained much the same, except that about ten days before her death she had several severe rigors, followed by heat and sweats. About this time œdema of the opposite limb took place. It was attended with considerable pain, but pitted under pressure as the other extremity.

She died February 14th.

Appearances on Dissection.

Externally.—Great emaciation; œdema of both lower extremities.

Abdomen.—A large cavity, containing putrid matter mixed with portions of coagulated blood, occupied the whole of the right iliac fossa. The psoas and iliac muscles were almost entirely destroyed. The abscess appeared to have followed the course of the former, and had also burrowed deeply amongst the adductor muscles of the thigh. The edges of the ilium and pubis, which form the brim of the pelvis, were denuded; and a portion of the capsular ligament of the hip-joint was destroyed, so as to lay bare a part of the head of the femur. The cartilage, however, covering this was not ulcerated, but presented a darker colour than usual, and had lost the polish natural to it in a state of health.

The anterior boundary of the abscess was simply formed by the peritoneum, except at one part where this membrane was ulcerated, but where an adhesion was formed with the lower part of the ascending portion of the colon; thus at this part the intestine formed a boundary to the abscess, and prevented effusion into the cavity of the peritoneum; but it was itself ulcerated, and formed a free communication with the abscess, so that feculent matter had passed into the cavity from the intestine.

The abscess further extended into the cavity of the pelvis by the side of the uterus; and a communication was formed between it and the abscess, by means of a small opening a little above its cervix.

The upper part of the uterus adhered, by means of its peritoneal covering, to the small intestines. A circular portion, of about the size of a shilling, was completely destroyed (but so as to leave its peritoneal coat entire), or, at least, it seemed to consist of nothing more than putrid sanies, although the remaining portion was firm, and apparently healthy, except just at the point of communication with the abscess.

The external iliac artery and vein, as well as the nerves passing to the anterior part of the thigh, were comprised in the abscess; the artery much contracted, but pervious; the vein had a cordy feel, and contained a firm coagulum, easily separated from the vessel; the inner coat of which was smooth and pale, but its outer coat was much thickened.

This state of the vein was traced from the commencement of the external iliac to the passage of the femoral vein, through the adductor muscle of the thigh.

On the *left side*, the external iliac and femoral veins presented to the touch an unusual degree of firmness. On opening them, their contents were found to resemble a mixture of grumous blood and pus; the cellular coat was slightly thickened, but the inner tunic pale and polished, as on the other side.

The *Vena cava* presented a healthy appearance; no disease was observed in any of the other abdominal vicera.

Thorax.—Lungs quite free from disease, as were also the heart and great vessels.

OBSERVATIONS.—In tracing the history of this disease, and comparing it with the appearances found on dissection, it will, I think, appear probable that it had its origin in an inflammation of the cellular tissue, in some part of the iliac fossa, a short time after delivery.

The first symptom observed was pain in the groin and iliac region; alleviated, but not subdued, by the treatment employed. After a short time, this pain returned with increased violence, accompanied with great suffering when the limb was extended; the cause of which is sufficiently explained by the manner in which the psoas and iliac muscles, as well as the nerves of the thigh, were found implicated in the disease. The œdema of this (the right) extremity, did not occur until upwards of *two months* after the commencement of her illness.

With regard to the obliteration of the left iliac vein, I think it more than probable that it occurred about ten days before her death, at the time she was affected with rigors. The simultaneous occurrence of œdema of this limb, with the above symptoms, together with the semi-fluid consistence of the contents of the veins, seem, I think, to justify this opinion.

With this view of the case, I should conceive that the obliteration of the veins on the right side took place in consequence of their becoming implicated in the destructive inflammation going on in the iliac fossa. The veins on the left side were not implicated in the abscess, but they presented no decided marks of inflammation; and the appearance of their contents, joined to the symptoms observed during life, lead me to incline to the opinion that the morbid condition of the contents of these vessels was produced from an absorption of pus.

Three cases, in many respects resembling the above, are related by M. Velpeau, in a paper on "Phlegmasia alba dolens," inserted in the "Archives Génerales de Medecine," vol. vi.; and one by M. Bally, in the "Revue Générale de Médecine," for January 1827.

In examining the details of M. Velpeau's cases, it will be seen that shivering and fever, followed by severe pains in the region of the pelvis, preceded, for a greater or lesser period, the œdema of the limbs. For these and other reasons, which are fully stated in his analysis of the cases, he draws the conclusion, that the disease of the veins was *consecutive* to the formation of the abscesses. If dependance is to be placed on the morbid appearances, it is evident that, in one of the cases at least, (that in which the patient died on the 60th day) inflammation of the veins cannot be considered as the cause; since M. Velpeau expressly states, "Les vaisseaux eux-mêmes n'offraient aucune altération appreciable de leurs tissus"——seulement elles contiennent de la matière purulente mêlée du sang, mais qui était libre, et nullement adhérente à leur parois." Hence he remarks, "Je crois n'avancer qu'une conséquence naturellement tirée des faits, en disant qu'ici le principe du mal etait dans les articulations; que c'est de la qu'il est parlé, et que le reste ne doit étre regardé que comme dependance ou comme consecutif."

Mr. Arnott, in his very interesting paper, "On the secondary effects of inflammation of veins*," remarks on these cases as follows:—

"Upon the connexion of the affection of the joints with inflammation of the veins, there is an appearance of direct evidence in two of the cases related by M. Velpeau, although the description is somewhat incomplete."

That there was a *connexion* between the disease of the veins and the abscesses, will scarcely admit of a doubt; but if Mr. Arnott intends to infer, that the *latter* were the consequence of the *former*, I do not think he is borne out in this opinion by the facts of the case. It appears to me, on the contrary, that both these cases, and the one above related, tend to invalidate the general conclusion drawn by Mr. Arnott—"that the inflammations and abscesses which arise in remote situations, after injuries, or after the process of parturition, are attributable to the existence of phlebitis in the part of the body primarily affected." Indeed, I think the case of Griffin, related by Mr. Arnott†, admits of the interpretation given of the above cases; viz. that the disease in the veins was consecutive to the formation of abscesses in various parts of the body. These, it is stated, had existed for many months before the death of the patient; and it is remarked, that he never complained of the right thigh or leg, but that *latterly* this (the right) leg and the other had become œdematous.

That abscesses and inflammation, in remote parts of the body, frequently supervene upon inflammation and suppuration of a vein, appears clearly proved, and Mr. Arnott's paper contains many interesting examples of this. But, on the other hand, it is not less certain that inflammation and suppuration, or at least some morbid condition of the veins, or of *the fluid circulating in them*,—often supervene upon the existence of abscesses or suppurating surfaces in some part of the body.

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* Medico-Chirurg. Transactions, vol. xv. p. 1.
† Ibid. p. 109.

The *coincidence* of these affections is sufficiently proved by numerous facts; but, to ascertain the real nature of the *connexion* between them, it is important that the *order* in which they occur should be clearly ascertained.

CASE OF
DISEASE OF THE SPINAL CORD;
With Observations.

By H. P. Robarts, Esq.

A young lady, aged 24, of a robust and healthy constitution, but of a nervous temperament, was attacked with the small-pox, in July 1828, having been vaccinated in early youth. The convalescence from this disease was characterized by a disposition to diarrhœa—excessive while it lasted, but readily controlled. About two months after her recovery, she began to complain of an occasional stiffness and numbness in the right leg and thigh: at times there was a difficulty of bringing them forward in walking, and in the attempt to do so they were propelled against the left. The patient described her loss of power by saying that the leg, at these times, seemed to her as senseless as a log of wood. After having stumbled in this manner, she would walk on steadily for a quarter or half an hour, without experiencing a recurrence of the difficulty. This affection was increased by any agitation of mind: she could not walk across the room, when excited, without making two or three of these false steps. It was also more distressing on going up stairs. There was no tenderness at any point on the spine; no headache, no giddiness, no dimness of sight, nor any other evidence of disease, either of the encephalon or of the spinal cord. There was no defect in the general health; the appetite was good, though the bowels were disposed to be costive. Little was done for the complaint at this time. Sulphate of quinine and a gentle aperient were prescribed, but, as no evident advantage was gained, they were soon discontinued. In the June following, or about nine months from the first indication of the disease, it had become so serious an inconvenience that it occasioned a decided limp in her gait. Sir C. M. Clarke was consulted: he prescribed the ferrum ammoniatum, with an aperient pill to be taken at bed-time, when requisite. She took this medicine for the space of two months, but as she did not improve the quinine was tried again, but with no better success. In the month of August she was recommended to go to the sea-side, to bathe, and to adopt a generous diet. At this time the patient could not walk across the room without danger of falling, and the affection was confined to the right leg and thigh: the digestive functions were apparently vigorous. She returned from the country after a short stay, much worse, and to my surprise I found her confined to bed, with complete paralysis of the lower extremities. Mr. Kingdon was now consulted, and those who know that gentleman will not doubt that the spine was thoroughly examined: still there was no evidence of disease to be detected—there was no tenderness over any of the vertebræ. On raising the patient off her feet, and then allowing her to fall upon them so as to jerk the vertebral column, she evinced not the slightest uneasiness. Her general health had, however, rather declined, and the bowels were constipated. A pill of aloes and sulphate of iron was ordered to be taken three times a-day. This acted copiously on the bowels, and for the first month there was some improvement; the patient was enabled, with the assistance of one person, to walk slowly, and with a shuffling gait, across the room. It is remarkable that the right leg, which had been the first to suffer, was now stronger than the left. The improvement did not continue long; faintness, depression of spirits, and loss of appetite supervened, and the patient complained of pains about the hips. The aloetic medicine was diminished in quantity, but the case not improving, it was abandoned in December, after two months' trial. On the 5th of that month, the powder of the nux vomica was prescribed, in doses of half a grain, three times a-day. It was increased on the 8th to two-thirds of a grain; on the 11th to one grain; on the 18th to one grain and a half; and on the 24th to two grains. Its usual effects, involuntary twitching of the muscles, followed, to the great annoyance of the patient, who earnestly requested that the medicine might be changed; and as the paralytic symptoms were increasing, and the condition of the health deteriorating, it was discontinued. From this time (the 28th of December) till the end of January, small doses of blue pill, with a sufficient quantity of aloes and rhubarb to keep the bowels regular, were given every night; but without producing any apparent effect upon the complaint.

Mr. Kingdon now saw the patient again. The spirits were depressed, and the digestive functions much impaired. With an effort of the body, one leg could be projected forward, and by another the other; there being a person on each side to assist. The decoction of bark, combined with rhubarb and ammonia, was prescribed (January 1830). The general health improved, and the paralytic symptoms were again slightly relieved. The patient remained in the same state the whole of this year, except that in addition to the loss of motion in the legs, there was also a loss of sensation for a short time in one of them, and when it recovered the other was attacked in a similar manner. There were also occasional catchings up of the limbs, and violent tremors, lasting for a few minutes only. Electricity was fully tried in the summer; shocks from a powerful machine were passed through the lower extremities, hips, and back, but no benefit followed. Dashing cold water on the back was equally unavailing. At the end of the year, all medicines, except an occasional aperient pill, were abandoned. About the beginning of the following year (1831), the numbness and loss of motion were complete from the toes up to the hips; the bowels became obstinately constipated, and the urine and fæces escaped involuntarily. A saline purgative was given, so as to procure one motion daily; and after this had been properly effected for a few days, the fæces ceased to pass away involuntarily, but the urine continued to do so. To combat this symptom, the tinctura lyttæ was prescribed, and I was much gratified to find, that, in less than two days, the medicine had produced the desired effect.

I now directed my attention to counter-irritation, and applied a blister on both sides of the lumbar region. Mr. Kingdon saw the patient again in the beginning of March, and recommended the application of a moxa over the superior posterior spinous process of the ilium, thinking that he observed a slight degree of tenderness at that point when firm pressure was made. The moxa healed after a few weeks, but the paralysis continued, or rather progressed, and the patient resolutely refused to submit to any further counter-irritation. All the plans which had hitherto been adopted had either been of no service whatever, or had only had a temporary effect, and she could not be induced to try any plan of treatment which would produce a sore, or give uneasiness in any way. As no sanguine hopes of a recovery could now be entertained, all measures for that purpose were given up. During this year, the general health was nearly faultless; the appetite was good, the sleep natural, and the spirits cheerful; the catamenia were regular, though scanty, and preceded by pain: she could sit up the whole day, and work, read, or amuse herself in any way that she pleased; felt no pain, or even uneasiness: the bowels, with the assistance of the saline purgative, were kept in tolerable order, and the sphincter retained a certain degree of power: the bladder, also, by the aid of the tinct. lyttæ, taken thrice a-day, was brought under the controul of the will; and, with the exception of the loss of motion and sensation, she enjoyed as perfect health as falls to the lot of most people. About the latter end of this year, I was requested to look at a small spot on the extremity of the back; it was an ulcer, as large as a sixpence, of an indolent character, and said to have been in the same state for the last two or three months. A lotion, composed of lunar caustic, was ordered to be applied to it frequently. I did not, at this time, see the patient often; and, when I did, I never saw the wound; for the friends assured me that it was doing well, and it was exceedingly inconvenient to show it, as that necessarily required that she should undress, and go to bed. About the beginning of January 1832, however, not having seen my patient for upwards of a week, I was summoned in haste to her; when I came, she was in bed, labouring under a high degree of fever, with a rapid pulse and furred tongue. At the place where the wound had been, there was a patch, about the size of a crown piece, completely black, and surrounded by an erysipelatous blush for several inches; a common-sized probe might be completely buried under the reddened skin, and a most fœtid discharge issued from around the slough. The part was ordered to be bathed with a weak solution of chloride of soda, linseed poultice to be constantly kept over it, and she was directed not to lie upon the wound; at the same time, suitable constitutional treatment was adopted. Had counter-irritation been likely to cure her paralysis, it was now tried on the most extensive scale; for, when the slough separated, it left a wound considerably larger than the palm of the hand, and at least an inch and a half in depth; burrowing also, for a considerable distance, under the skin. The discharge was at first profuse; but the fever abated as the inflammation decreased, and the slough came away,—and the patient recovered her appetite and powers of digestion, so as to be able to support it. The sore gradually improved in character, and I began to hope that I should soon see her on the sofa again; but, alas! we were only gliding away from Scylla to slip into Charybdis. The continued pressure on the hips, from lying upon the sides, abraded the skin from those parts, and they speedily assumed the same aspect as the wound upon the sacrum had done: the sloughing process did not, however, proceed to the same extent as in the first instance; neither was the constitutional disturbance so violent: these wounds ran a similar course to the first one In process of time, others broke out under the tuber ischii, on the inner side of each knee, and also on the outer sides of each ancle: these latter were never of very great extent; for, as the parts had but little weight to support, the effect of the pressure upon them was not great. The patient survived, in this state, till the 30th of December last, when she died completely exhausted; at a period of rather more than five years from the first appearance of the paralytic symptoms, and after having been bed-ridden for two years, with ulcers of the worst description: during this latter period, various contrivances were suggested for the removal of pressure, but they all failed; what relieved it in one place, only threw it upon some other. The patient often rallied, and at times all the wounds appeared in a healing condition: it was likewise observable that she was generally better in summer than in winter. Means were proposed for invigorating the system; but, latterly, she took a complete disgust to all medicines, and could not be persuaded to take any thing but an opiate combined with æther and ammonia: the ease and relief she experienced from her fainting sensations, induced her to have recourse to this remedy in the latter stages of the complaint The bowels were kept in a state of tolerable regularity by the frequent use of clysters; but what added much to the misery of her situation was, that both the sphincter of the bladder and of the rectum had lost their power for a long time previous to her death, and the urine and fæces passed away unconsciously.

Appearance of the body 48 *hours after death.*—The emaciation was extreme; the knees were drawn up and contracted; the feet and legs were œdematous, particularly the right. There was a slight curvature of the spine towards the right, in the lumbar region. There was an ulcer upon the sacrum, showing the whole of the external surface of that bone in a state of necrosis, extending to the sacro-iliac symphysis on either side, and laying bare the posterior spinous processes of the ilium. There was another on the dorsum of the right ilium, exposing the dislocated head of the thigh-bone on that side, also in a necrosed state: below this, there was another ulcer, on the same side, through which the right tuber ischii was to be seen. On the left side, there was an extensive wound, reaching from the external parts of generation to the left ischium, and laying it bare for at least an inch around the tuber. There were scars around the knees, and upon the ancles, marking the places where wounds had been.

Very little appearance of disease was noticed about the brain or its membranes. There was a slight effusion beneath the arachnoid; and, on examining the base of the brain, it was thought that the pons varolii was rather smaller than it should be, and that it had a shrivelled appearance.

On removing the spinous processes of the dorsal vertebræ, a fatty tumor was exposed opposite to the tenth, eleventh, and twelfth; it was about the thickness of the middle finger, and between two and three inches in length; it had pressed the spinal cord, or rather its membranes,—for there was no cord, at this point, to the left and anterior side of the canal: it was exterior to the theca, which was injected, and redder than natural above the tumor, but quite bloodless below it. On slitting up the membrane, to examine the cord itself, is was found in a healthy condition, both above and below the site of the tumor; but at that part it was entirely wasted away; not even a shred remained: it seemed as if the pressure had caused it to be absorbed, or rather as if it had been squeezed into two separate parts by the growth of the tumor; for nothing was left of it for the space of more than an inch; and the upper and lower portions of the medulla spinalis were connected by the involucra alone.

On attempting to dislodge the tumor (which was done before the cord was examined), it seemed to have formed an adhesion to the right side of the canal. By using a slight degree of force it gave way, and about half a pint of serum flowed into the canal. Looking to what had been the attachment of the tumor, a circular orifice was discovered, between the rings of the 10th and 11th vertebræ, which was found to open into a cavity behind the right pleura, and above the diaphragm, capable of holding about twelve ounces of fluid, and lined with a smooth polished surface. The connexion between this cavity and the canal appeared to have been occluded by the tumor, which did not simply lie against the orifice, but had its growth from the edges of it. The rest of the body was not examined, as these appearances were deemed sufficient to account for most of the phenomena which had occurred during life.

The first question which presents itself on reflecting upon this singular case, is, at what time, and in what manner, this tumor and cyst were formed, and by what degree (if I may be allowed the expression) of affinity they were connected together? I think it must be allowed, that it is highly probable it existed some time before the symptoms of paralysis were observed; for it must have been comparatively slow in its growth, and have allowed the parts time to accommodate themselves to the new state of things. It is therefore likely, that the momentary loss of power, which occurred at considerable intervals, and which was the first inconvenience which it occasioned, did not happen until this tumor had been growing for several months; and I am much inclined to believe, that its origin was antecedent to the attack of small-pox, and that it began two years previously, when (as I have been informed) she received a severe blow upon the back. No immediate consequences followed the accident; but it is possible that a small vessel might then have been ruptured, and a clot of blood effused, which, in process of time, might be partially absorbed, and partly organized. That thus a small tumor was formed, having within itself a power of augmentation, though necessarily crippled in this respect by its situation; that, as it grew, its capsule was attached between the rings of the 10th and 11th vertebræ, and the tumor, not being able to expand itself beyond a certain extent, exerted a considerable pressure between those vertebræ, until it at length projected between them; but that, while undergoing this pressure, that part of it which escaped became disorganized, and the capsule alone remained. Into this a fluid was secreted, and thus a portion of what had been the capsule of the tumor became a serous cyst. I am the more inclined to believe that this explanation is correct, because it was found that the tumor had no capsule on that side which was opposite the cyst, and that it had undergone a process of softening at that part. As the tumor was torn away from the side of the canal before the existence of the cyst was dreamed of, I am not capable of saying positively, whether the capsule and cyst were continuous.

The next point worthy of attention, is the symptoms which it occasioned. These were loss of sensation and motion. The case illustrates as simply as possible, what consequences are to be expected from a division of the cord. The tumor grew from the right side of the canal, and its presence, as might have been anticipated, first occasioned a loss of motion in the right leg and thigh; and it was not for many months after that the left became paralysed. It is extraordinary that the remains of the spinal cord were found anterior to the tumor, which must therefore be supposed to have pressed upon the posterior column in the first instance, though the patient did not lose sensation for more than a year after the motive powers had been affected. I cannot explain this, except by supposing that the posterior column is firmer than the anterior, and that the pressure was felt first by the anterior, though more directly applied to the posterior*. The fact, at first sight, appears to be an evidence against the clear and beautiful arrangement of Sir C. Bell. It has been long known that paralysed limbs are more susceptible of injury than other parts. Mr. Earle has published some cases, shewing how ill they resist the effects of heat and cold. In the present case this loss of a preservative principle was wofully exemplified in the sloughing that followed the least pressure. The loss of nervous influence seemed to render the parts more amenable to the effects of mechanical agents. This is not, perhaps, a new or astonishing fact; but the readiness with which reparation took place when the pressure was removed, the celerity with which these ulcers healed, when the patient was placed in such a position as not to lie upon them, if not a novel fact, is at least one which has not been dwelt on, but which deserves an attentive consideration. It shews, as far as one case can, that the destruction of the protecting agents, the nerves, only destroys those powers by which the parts resist external injury; that it has no influence whatever upon the circulating or absorbent system (in this case the spinal marrow was completely divided); they therefore must receive their nerves from some other source than the spinal cord, unless we are prepared to admit, that they possess a power of action *per se*. It would also plainly appear, that the processes of granulation and cicatrization are in no way dependent on the brain and spinal cord, since they can go on vigorously when the absorbent and circulatory apparatus are healthy, even though the part in which they take place should be cut off from that nervous centre.

The last observation which I would make, has regard to the effects of the remedial measures which were adopted. The patient went out of town, partook of a generous diet, and came home after a short stay of a month or six weeks. When she went, she could walk across the room; on her return, she had not the slightest power over a single muscle of the lower extremities. It would seem that the change had the effect of producing a certain degree of plethora in the system, which was favourable to the growth of the tumor, and increased the bad consequences of the pressure. The purgation which was afterwards instituted, reduced this plethora in a slight degree, and in the same ratio relieved the pressure; consequently the symptoms were slightly ameliorated; but as it was not possible to reduce the size of the tumor, or to arrest its growth, the symptoms necessarily continued, with little variation, steadily increasing.

The effect of the tr. lyttæ is perhaps the most singular of the therapeutical phenomena. After a complete incontinence of urine had been established, it entirely restored its power to the sphincter vesicæ, and for a twelvemonth it was maintained by its agency alone; for if it was omitted for twenty-four hours, the urine would pass away involuntarily, and continue to do so until the tincture was resumed. It is singular that any drug should act so exclusively upon the muscles of the neck of the bladder, not affecting the rest of the system, and stimulate its nerves to action, after their sensibility to ordinary impressions had been entirely destroyed by pressure. It is extraordinary; for although it cannot be supposed that the spinal cord was divided at this time (two years and a half previous to the patient's death), yet the pressure upon it must have been considerable, since it had produced a total paralysis of the lower extremities. This fact, demonstrating the power of this drug over the sphincter vesicæ, deserves to be carefully noted, as it is likely to prove highly beneficial in other cases of paralysis.

10, Everett-Street, Russell-Square,
March 1, 1834.

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* In a discussion upon this case, Mr. Greville Jones observed, that it was a common occurrence for patients to lose the power of motion, and yet retain their sense of feeling, in cases where the cause of the disease appeared to be so situated as to operate equally on each column of the vertebræ; and he adverted to some instances of fracture and disease of the bone, in proof of his assertion. He considered that the motive powers were more readily affected than the sentient.

PRACTICE OF FORENSIC MEDICINE,

AS CONDUCTED IN THIS AND OTHER COUNTRIES.

To the Editor of the Medical Gazette.

SIR,

A "tale of mystery" has been going the round, of the newspapers during the last week. A skeleton, it seems, was found in a field near Oxford; and an inquest was held upon it. It does not appear that any professional investigation was made as to the sex, or age of the individual to whom the bones belonged, nor as to the condition of those parts, whereby an opinion might be formed how long they had lain in the earth; but an old labouring man was examined, who told a tale, that fifty-six years ago he had reason to suspect that a man was murdered and buried in this place. The jury were *satisfied*, and returned a verdict of "Wilful murder against some person or persons unknown."

I could not help being struck, sir, with the contrast between this English mode of medico-legal inquiry, and the French manner of managing such matters; for example, in the case of which you gave an abstract in a late number of the Gazette, where the skeleton of a murdered female was amply identified after an interment of nearly twelve years; and my dissatisfaction was increased when I called to mind a somewhat similar example, which I had lately met with in an official document, by Dr. Wagner, of Berlin.

But the mystery-case above alluded to is only a small sample of the mode in which judicial inquiries are marred in this country, for want of proper investigation; and I think the defect is principally attributable to the nature and constitution of our coroners' courts. The officer who presides is held in no very high public estimation: he is frequently a man of very limited acquirements—a mere lawyer; his field of labour is generally extensive, and he has, of course, much business on his hands. He gathers a jury, as chance throws them in his way, of personages commonly more superficial than himself, and who, being generally impressed into the service, and acting reluctantly, are easily *satisfied*, and find whatever verdict is suggested to them. If medical evidence be called at all, it is such as gives least trouble to procure, for the coroner has no means of remunerating competent witnesses, whose testimony might be desired: so that the evidence which is obtained is generally volunteered, and often obtruded by persons who have no valuable information to give, nor object perhaps, except to acquire a little petty notoriety.

Now, sir, the coroner's is unquestionably an important office, however trivial and degraded it may appear in the eyes of many persons. The coroner is a law officer, whose duties, like those of the sheriff, require him to act both in a ministerial and a judicial capacity; but undoubtedly, sitting as he does so often upon inquests which involve medical considerations, he ought to be possessed of a large share of general information, of which medical knowledge should form no small part. To argue that he ought, on this account, to be *bonâ fide* a medical man, is going rather too far. The coroner has a great deal of civil as well as criminal business to conduct, for which the acquirements of the lawyer are much more necessary than those of the medical man. But while the addition of a certain portion of medical knowledge is requisite, and perhaps sufficient, for the coroner in most cases, yet instances constantly occur in which the ends of justice cannot be satisfied by simple and hurried investigations: the presence of competent medico-legal witnesses, persons of experience in the conducting of scientific inquiries, is highly desirable. This, however, is a species of aid to the administration of justice for which the wisdom of our legislature has never yet provided.

In France, where the faculties and the academies of medicine, and not a few of the mass of the profession, consist of pensioned employés and government officers, such investigations as those alluded to are known to be conducted with all the requisite ability and due observance of justice. The names of Foderé, Marc, Chevallier, Barruel, Orfila, and a number of others, have acquired an European celebrity by such labours. And in Germany the admirable order of state medical officers, known by the titles of *Kreis* and *Stadt-Physiker*, is specially provided for the performance of all duties of this kind,—to act as the enlightened referees, by whose aid the serious medico-legal difficulties which so frequently present themselves may be determined.

In Rust's valuable paper, which you published in the Gazette a short time since, a brief sketch of the qualifications required of the Physikus in the Prussian states was given. Allow me to give, by way of supplement, a short abstract (from Dr. Koch's book) of the principal duties that are assigned to that officer, in the discharge of his public functions.

"He shall bestow (these are the words of his Commission) his especial attention on the salubrity of the district committed to his charge. As soon as any symptoms of contagious or epidemic disorders are discerned, he shall promptly adopt the speediest measures that prudence suggests, and apprize the boards whom such events chiefly concern. He shall comply with the laws of the medical profession, and strenuously see that they be complied with by others. He shall further, when called upon by the government-board, superintend the treatment of the sick poor, and take a fair share of the business of the medical police of his district generally. Upon all occasions, when called upon, he shall be ready to engage in the *post-mortem* examinations which devolve upon him, and in the medico-legal investigations relative to lesions and injuries to living persons, and concerning the state of mind and body of individuals submitted to his scrutiny, giving a deliberate judgment in each case. He shall also devote particular regard to the progress of vaccination. All this, as well as all other business confided to him by the proper authorities, he shall perform cheerfully. And, in fine, in all his official relations, he shall so conduct himself as a faithful and diligent Kreis-physikus should and ought to do. *"

Some able reformers (the Retired Practitioner, for example) have suggested the opening of a wider field, and the proposing of higher honours, to aspirants of distinguished and superior accomplishments in our profession. In the establishment of a Physicate, it seems to me that there would be both distinction and utility combined. If in the changes which no doubt will result from the present parliamentary inquiry, the formation of an order of medical referees, to act, among other important duties, as coroners' assessors, and in many other respects like the *Physiker* of Prussia, could be secured, I conceive it would be conferring one of the greatest benefits on the community, while it would afford encouragement for a laudable ambition in the profession, that could not fail to promote the interests of medical science.

Such an order, however, can scarcely be fixed on a perfect footing here, until the means of procuring the necessary acquirements are first rendered attainable; and this, evidently, can only be by the establishment of *practical* schools. The teaching of state and forensic medicine is, at the present moment, only in its infancy in this country. It can only be taught theoretically among us; for to many, if not most of the teachers, the investigation of a *real* medico-legal case—through which alone real practical information can be derived—very rarely, or never, occurs. And if the present system pursued on inquests—that of committing medico-legal investigations to casual witnesses—be allowed to continue unaltered, there is no prospect of the improvement of legal medicine in England, or of being able, at least in the first instance, to establish an efficient body of medical men, corresponding with the Kreis and Stadt-physiker of Prussia.—I am, sir,

Your obedient servant,
W. Cummin, M.D.
Lecturer on Forensic Medicine.

24, Great Russell-Street,
March 15, 1834.

MANAGEMENT OF MADHOUSES.

To the Editor of the Medical Gazette.

Sir,

A copy of the following petition has been presented to the House of Commons, during the present session of parliament, by the member for Wakefield, Daniel Gaskell, Esq.; and a similar copy will, I expect, in the course of a few days, be presented to the House of Lords by Earl Fitzwilliam.

I have transmitted this petition to you, for publication in your valuable journal, in case you should consider it an object worthy of your attention.

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* *Vollst. syst. Sammlung der Preussischen Medicinalgesetze und Verordnungen. Magdeburg*, 1833, p. 39-40.

I am, sir,
Your obedient servant,
CALEB CROWTHER.

Wakefield, 13th March, 1834.

To the Honourable the Commons, &c. the Petition of Caleb Crowther, Physician, practising in Wakefield, humbly sheweth,

THAT your petitioner has, professionally, for many years attended the pauper lunatic asylum of this place, and that since he resigned the office of physician to that institution, he has visited a great number of madhouses and public hospitals, in different parts of the empire, with a view of comparing their respective merits and defects, and of forming a just estimate of the first principles necessary for the government of madhouses.

That your petitioner humbly prayeth your Honourable House to appoint a Commission, during the present session of parliament, to examine, without exception, all the public and private asylums for the insane in the united kingdom; and to compare their administration with that of some of the best regulated hospitals and infirmaries.

That the infirmaries at Glasgow, Liverpool, Manchester, Birmingham, and Leeds, in the opinion of your petitioner, afford admirable specimens of hospital discipline.

That the Asylum at Glasgow, and the Retreat belonging to the Society of Friends at York, afford the most favourable examples of a public and private madhouse which your petitioner has witnessed

That although great improvement has been made in the management of madhouses during the last twenty years, your petitioner has reason to believe that great abuses, great negligence, and great licentiousness, still exist in some of them.

That the first principles necessary for improving the management of madhouses, are daily visitation, scientific governors, the admission of patients in the first stage of the disease, and regular employment for the convalescent insane.

That the superiority of our infirmaries has, with great justice, been ascribed to the assiduity of their daily visitors; who minutely examine the cleanliness and ventilation of the house, the quantity and quality of the food, the conduct and behaviour of all the officers, servants, and patients in the institution. Whatever is found amiss is recorded in a book, submitted to the inspection of a weekly Board of Governors.

That this system of visitation has been adopted at the asylum at Glasgow, and at the Retreat at York.

That, without the aid of such a system, the visits of Governors once in three months will ever remain ineffective.

That, in the opinion of your petitioner, there exist in every part of the country benevolent beings of both sexes, who would accept and faithfully execute such a trust gratuitously.

That the Governors of madhouses ought either to understand the moral and medical management of the insane, or, like a sensible jury, they ought to be guided by those who do understand the subject.

That the great errors committed by the visiting justices, in medical matters, at the Penitentiary at Milbank, at Cold-Bath-Fields prison, at the asylum and prison at Wakefield, and at the asylum at Hamwell, prove how unfit magistrates are to govern such institutions, and indicate the necessity, in this country, of the appointment of a minister of health. That magistrates do not understand when the insane are judiciously treated, and will not submit to the appointment of visitors, because they say that it will create *imperium in imperio*, and derogate from their power.

Your petitioner, therefore, begs permission to suggest to your Honourable House, the propriety of putting all madhouses, both public and private, under the management and entire direction of a Medical Board, consisting of twelve persons; nine or ten of that number to be physicians, and the remainder civil engineers. Three members of this Board—two physicians and one civil engineer—to be required to visit four times a year, at irregular intervals, every asylum in the united kingdom.

That correct reports of the history and treatment of every insane case be required to be transmitted monthly to this Board, in London. That such reports would serve to stimulate the diligence, and to expose the neglect, of the medical attendants, and to improve and equalize the mode of treating the insane.

That, at each visit, the travelling physician ought to be required to examine every individual patient, and to ascertain the correctness of the reports transmitted to the Board. Such a regulation would prevent the possibility of any insane patient being long unnecessarily confined. A report or summary of the practice in every asylum, both private and public, ought to be published annually by the Medical Board.

All the acts of the physicians and civil engineers ought to be done in public, except the visits of the physicians to the insane patients.

The business of the civil engineer will be, to examine whatever relates to the buildings, to the accounts, and to the domestic economy of the establishment.

That, at the first attack of the disease, the patient ought to be sent to an asylum, or privately put under proper restraint and suitable treatment, in order to prevent the disease from becoming incurable from injury done to the structure of the brain.

In the higher classes of society, as well as among the poor, the insane are frequently detained at home, in consequence of the fears, the ignorance, and the prejudices of their relations, and sometimes from the self-interest of the medical attendant, until the disease, from morbid organization, becomes incurable.

Your petitioner humbly submits to the consideration of parliament, whether or not a much larger fine ought to be imposed upon the rich, than what is now imposed, by the existing law, upon the overseers of the poor, who neglect to put their relations and friends under such restraint and medical treatment, as is essential for their safety and recovery. Your petitioner is, from ample experience, convinced that, after curing the bodily disease, incident upon the first attack of insanity, nothing contributes more towards removing the mental alienation, than employment suited to the circumstances and habits of the patient. The method of verifying this observation will be, to compare the number of patients cured in mad-houses, placed under similar circumstances, where employment is extensively used, and where no recourse is had to it.

Your petitioner, therefore, most humbly prays, that your Honourable House will adopt the measures herein suggested, or such other measures as may appear to your wisdom most efficacious, to secure to the insane judicious and humane treatment during confinement, and the most speedy restoration to their friends; and your petitioner will ever pray.

Caleb Crowther, M.D.

SIR CHARLES BELL'S VIEWS.

To the Editor of the Medical Gazette.

Sir,

It is an extraordinary assertion of S. in the last number of the Medical Gazette, that S. Y., in the preceding number of that journal, " presents not a single circumstance which can be construed into a fact;" while he makes no attempt whatever to disprove the statement of facts, of which the short paper of S. Y. wholly consists; namely, that Sir Charles Bell adduces no proof whatever of any particular connexion between the middle column of the spinal marrow and the muscles of respiration, and that there is no set of muscles exclusively employed in respiration.

S., by reminding the reader, that Sir Charles Bell's doctrine does not wholly consist " in the opinions which he has delivered about the nerves of respiration," and making no reply to the foregoing statements, which, if correct, must invalidate all he says on this subject, virtually acknowledges the impossibility of defending it. How far it forms an essential part of his system, those acquainted with it will judge.

My knowledge of Sir Charles Bell's opinions is not derived alone from the summary in your journal, although, as appears from what is said in the number of that journal for the 8th instant, that summary is written by Sir Charles Bell himself, and therefore must be a correct account of his opinions.

With regard to the subject being so " summarily dismissed " by S. Y., if it appear that the foundation on which the opinions rest cannot be maintained, an examination of them in detail is evidently superfluous.

Let us see on what foundation the other parts of his system rest. S., in his reply, says,—" Before can know accurately the peculiar kind of motion, or kind of sensation, which is enjoyed by one nerve in contrast with another, or solve the question why this nerve should be connected in the particular manner which we find that it is with others, it is necessary that we be perfectly acquainted with the nature of the actions performed by the muscles, to which it is distributed, or with the peculiar sensibilities of the part."

The foundation, on which all that part of his system, referred to in this quotation, rests, is, that the sympathy of parts depends on the connexion of their nerves. By what facts is this position established? It will be found, that all the facts on the subject are in opposition to it; whereas they must be such as not to admit of any other explanation in order to establish it.

The phenomena of sympathy, so far from depending on the connexion of nerves, are often most feeble where the connexion of nerves is greatest, and strongest, where no connexion of nerves whatever can be traced. It is even well known, that we still continue to refer sensations to limbs that are lost, at whatever part the amputation is performed. The whole of the phenomena evince that the cause of the sympathy of parts exists in the central parts of the nervous system; and that, as far as relates to it, tracing the connexion of nerves is altogether labour lost. If S. wishes to support that part of Sir Charles Bell's system, to which I now refer, he must simply state the facts which contradict what I maintain to be a fact; namely, that Sir Charles Bell adduces no proof whatever that the sympathy of parts depends on any connexion of their nerves,—a doctrine which was admitted only at a time when our knowledge of the animal economy was extremely crude. If he cannot adduce such facts, although he fill a volume with observations, they will be of no avail. Now, if Sir Charles Bell's system be deprived of its respiratory doctrine, and the influence of the connexion of nerves in determining the sympathies of the animal economy; how much of it will remain? I believe I may reply, in the words of my first letter, which you declined publishing. * * * *—I am, sir,

Your obedient servant,

S. Y.

[The same reasons which induced us to decline publishing the first letter, prevent us from inserting the reiteration of it, which follows in the MS. of our correspondent; and we beg to add, that, unless the parties choose to come forward in their own names, the controversy must here cease.—Ed. Gaz.]

MEDICAL GAZETTE.

Saturday, March 22, 1834.

> "Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."
>
> Cicero.

CATASTROPHE OF THE "ONE FACULTY" PROJECT.

Our readers will be not a little amused to hear of the denouement of the notable reforming project broached in the Westminster Medical Society some months ago. It will be recollected, that a ridiculous resolution, about the propriety of establishing a single Faculty in this country, or expedient by which all branches of the healing art were to be rendered one and indivisible — was moved by Dr. James Johnson, and seconded by Dr. Sigmond. After some discussion of the question, it was thrown out, but was once more brought on the tapis under the pretext of an informality in the mode of taking the ballot. The "one faculty" men now rallied round their leader, and carried the measure by a successful *ruse*. Well, days and weeks —nay, months, have elapsed since the final ballot, and no petition was forthcoming (we thought it fairly defunct) till Saturday night last, when, with all the benefit of the matured experience of the learned committee, forth was brought, and read to the society, this document of great expectation. But, alas! for the "one faculty" men—if any there now be, for they "made no sign" on this occasion — there was not one word about the pet project in the petition, all hopes of the medical millenium having evidently come to an end; and, what is most curious, not a murmur was expressed on the occurrence of so lamentable a catastrophe. Nay, this is not all. The said petition obtained an abundant meed of applause for its concocters, on the ground of the *discretion* they displayed in avoiding all notice of the "faculty" project. And who, thinks the reader, was most conspicuous in thus crying down the "one faculty." Who was most remarkable in commending the omission of the silly scheme? Why, who but he who proposed it,—supported it in every possible way, twice balloted for it,—and staked the last shred of his character for consistency upon it?—he it was who seconded the motion of thanks to the committee for their very proper conduct in omitting all mention of the scheme. So much for the *requiescat* of the one faculty.

And now, let us make a few remarks on the circumstances. We see, in the fate of this foolish project, which has vanished into "thin air," the *prestige* of the ultra or destructive reformers in medicine. A little bustling, meddling party, in a medical society, sets itself up to suggest remedies for the arrangement and governance of the whole profession: a couple of advocates are thrust forward as spokesmen: these persons do not understand the *nostrum* which they have to propose, but they do their best to mystify the members who attend the ordinary meetings; and they succeed to a certain extent, by preaching up the expediency of equal rights and equal rank, for all who profess and call themselves medical men. But this was all very well, within the little scene of action, where the thing was got up. As soon as the rumour, however, reached the ears of the more intelligent part of the profession, it was no longer suffered; it was put down as a nuisance. What course, then, did the faculty advocates pursue? They had wit enough to perceive the strong set of the current, and so take the best measures they could to eschew the danger. Their petition, which was to contain their *nostrum*—their panacea for all the ills that physic is supposed to labour under—was suffered to lie by, till the drug should perhaps become palatable, if possible. But nobody would look upon it—nobody would have any thing to do with it till the nauseous part was removed; and this being the case, the unhappy advocates were obliged, bitter as it was, to swallow their own pill; they had no alternative. The petition lay all this time in abeyance, and was at last brought out in its expurgated and more endurable condition,—*minus* the unfortunate clause.

It is unnecessary for us to remind our readers of the opinions of various correspondents, so strongly expressed in the pages of this journal, concerning the one faculty project. Since we took in hand the exposure of this folly, we have had the satisfaction of finding that we had the concurrence and express approbation of all whose opinions were worth having; and it would be idle not to presume, that such sentiments had their proper weight even with our ill-judging and ill-fated ultra reformers. But there was another cause that co-operated for their discomfiture. They found themselves left to their fate by one of their greatest patrons. The coryphœus who interpreted their plan for them, after his own approved fashion, and who first affixed to the term "one faculty," a meaning not to be misunderstood, finding that the thing would not answer, left his deluded followers as usual in the lurch. He hoped, of course, to be able to make a stand for his own "collegium"—the outward and visible sign of the "one faculty;" but it was too plain that nothing could come of nothing; so he abandoned the speculation, and by way of diversion, or as a *dernier ressort*, took up the advocacy of a "tripartite" affair.

This, too, as it appears, having failed to procure admirers, and matters having become desperate with him, we have recently been amused with the announcement of the *indelicacy* (indelicacy proscribed in such a quarter!)—the indelicacy, no less, of agitating measures of reform, while parliament is directing its attention to the subject!

But such is ever the career and the close of such ridiculous proceedings: the only wonder is, that deluded people can be found who suffer themselves to be hoodwinked and led by the nose wherever their dangerous guides choose to lead them. The contagion of the example of the Westminster Society—although that body can only be said to have lent itself to the discussion, and luckily escaped the consequences of adopting the measure—the example spread (in a solitary instance) to a manufacturing provincial town, and rashly were resolutions carried there, in favour of the Faculty folly. We hope what has just happened will serve as a lesson to the party in question, and to all those who put their faith in pretended but reckless reformers. They should have seen that the silly project of equality of rights and equality of rank, was at a discount even when they were most attracted by it: they now see—they must see—that it has fallen, never to rise again. Let this satisfy them as to the boasted power and influence of the radical levellers in medical reform.

By the way, we would ask what has become of that great aggregate meeting which was summoned to meet in London about the opening of parliament; and to which all the provincial medical reformers were to send their deputies, in order that the walls of St. Stephen's might be made to re-echo the "One Faculty" chimes?—But we forget: it is no longer *delicate* to talk about these things.

DEGREES FOR DISSENTERS.

We are glad to observe the symptoms of liberality which begin to shew themselves in the University of Cambridge. The petition from that quarter, presented this week to the Houses of Lords and Commons, is highly gratifying. It prays for the removal of the restrictions which prevent Dissenters from taking degrees in that University, and is signed by a large proportion of the resident members, including among them two heads of Colleges, and all the names at present connected with Cambridge that do honour to her by the lustre of their literary and scientific renown. Had we not long been familiarized to the obstinacy, or over-cautiousness, displayed at our great seats of learning, we should have been perfectly amazed at the repugnance which they have hitherto displayed to granting degrees without religious pledges. Do they dread to hazard the experiment? They have the example before them of a venerable sister, equally tenacious as themselves of the essentials of religion—the University of Dublin; yet they can scarcely point out any danger that has arisen from the important changes long since adopted by her. Dissenters may freely pursue their studies in Dublin, and take even the highest degrees there in arts, law, and medicine; to Roman Catholics themselves the Irish University has been open these forty years; and it is a fact worth adding, that such things actually take place under the Chancellorship of his Royal Highness the Duke of Cumberland.

COLLEGE OF PHYSICIANS.

THE following note has been circulated, intended, we believe, as a reply to some observations recently made, on the College of Physicians, in the House of Peers:—

1. The College of Physicians grants its license to practise within its jurisdiction to any man who has obtained the degree of Doctor of Physic in any University upon earth, after a residence of two years; and who, upon examination, proves his competency. This license enables him to receive the ordinary emoluments of physicians—makes him eligible to all public institutions—to become a lecturer and teacher at the great medical schools—and to hold the high offices of physician to their Majesties and the Royal Family.

2. The College of Physicians, however, having thus done justice to individuals seeking to practise as physicians within their jurisdiction, has thought itself at liberty to provide for the honour of the profession, by offering some inducement to those who are about to enter it, to obtain that previous education, which, in England, has always been esteemed the highest and the best: and the inducement consists in admitting, by preference, the Graduates of Oxford and Cambridge to the Fellowship of the College.

3. The Fellow of the College has no advantage whatever over the Licentiate, with reference to the public. He differs from the Licentiate only in belonging to the governing body of the College; and in this capacity he has certain duties to perform, and holds in rotation certain offices. Of these offices, those of President, four Censors, Treasurer, Registrar, and four Lecturers, receive emoluments. The emolument of the President is 25*l.* per annum; of each Censor, 20*l.* per annum; of the Treasurer, 25*l.* per annum; of the Registrar, 40*l.* per annum; of the four Lecturers, the two juniors receive 10*l.* each; the third, 20*l.*; and the senior, 32*l.*

4. But although the College has held forth the little honour and profit of the Fellowship as an inducement to those who become physicians to obtain the previous education of an English University, it has elected into the Fellowship from time to time, and continues to elect, eminent individuals from among the Licentiates.

WESTMINSTER MEDICAL SOCIETY.

(FROM A CORRESPONDENT.)

THE fifth act of that laughable entertainment, at the Theatre in Great Windmill-Street, entitled " the One Faculty scheme," or, " the Petition to Parliament," was performed on Saturday evening last. The house was but thinly attended, several of the principal actors being absent; but the performance, on the whole went off with great *eclat*. Before indulging our readers, however, with the denouement of the piece, we must recal to their recollection the most striking incidents which have marked its chequered progress hitherto.

The performance began (it will be recollected) on Saturday, Nov. 23, 1833, with a flourish of trumpets; after which, Dr. James Somerville pourtrayed the blessings of the " one faculty scheme," with a felicity of language, and an energy of action, never sufficiently to be admired. " All which it behoved the Society to do," he said, " was to petition parliament for the assimilation of the whole profession into one great medical FACULTY. Physicians, surgeons, and apothecaries, should all sit together in one FACULTY. The profession would thus become an united body, having one hall, one museum, one library, and one community of sentiment! The profession should not even trouble parliament to frame laws for their internal management, but merely require the appointment of a FACULTY upon a sound basis. Genius would then be disburthened of the impeding weight of grievous monopolies, and would shed around itself, and the whole circle of society, a truly brilliant and invaluable light[*]."—(*Great applause, and another flourish of trumpets.*)

The second act exhibited Dr. James Johnson advocating the cause of the " one faculty" scheme, and proposing resolution No. 8, which declared that the grand panacea for all the evils under which the profession had groaned, and was still groaning, was " the constitution of one faculty, or academy, of medicine." An ingenious contrivance for giving interest to the drama was devised by Dr. Gregory; and with this the second act closed.

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[*] See Lancet, No. 535, pages 363 and 364.

When the curtain drew up for the third act, on Saturday, December 14, the performers were all seen preparing for a grand ballot, by which the fate of the one faculty scheme was to be decided. Dr. Gregory's amendment was negatived, and the faculty scheme thrown out by a large majority! End of act third.

The fourth act introduced a new performer upon the stage, in the person of Dr. Epps, who, availing himself of an irregularity happily discovered in the preceding portion of the drama, again summoned the attendant spirits from the vasty deep, and commanded them to enact over again the imposing ceremony of the ballot. The audience, breathless with impatience, witnessed, as in *Der Freischutz*, the casting and counting of the balls; and now the one faculty scheme was triumphant!! What was injurious to the profession on the 14th December, was found to be highly favourable to it on Saturday January 4th, when the curtain fell, and the fourth act terminated.

On Saturday last, as we have stated, the curtain again rose, and discovered Dr. Copland in the chair. After apologizing for the great length of time which had elapsed since the last performance, he proceeded to read the petition to the legislature, which, in accordance with the previous resolutions, the committee had with great care and diligence prepared. What will be the surprise of our readers when we inform them, that in this petition not one word appears about the "one faculty" scheme; not one line hints at an amalgamation of the several orders of practitioners. The community of hall, of museum, of library, and of sentiment, is no where adverted to. Instead of praying for the constitution of one faculty, or academy, of medicine, the society pray that parliament will, in its wisdom, see fit to appoint *a governing body, or council*, for the general guidance and regulation of the profession, leaving it in doubt whether that governing body may not be best constituted of persons wholly unconnected with the medical profession.

The best part of the joke, however, is still to come. A Mr. Costello, who had been one of the most strenuous supporters of the "one faculty scheme" in the early part of the drama, moved a vote of thanks to the committee, for the admirable manner in which they had drawn up the petition, and especially for the singular felicity with which they had avoided all debateable points.

This resolution of approval and of thanks was seconded by — Dr. James Johnson. Start not, gentle reader; it was even so—by Dr. James Johnson himself, the professor of consistency. The drama then ended, as all well-conducted five-act comedies should end, by all parties shaking hands; and the curtain fell precisely at ten o'clock, amid the plaudits of the audience.

Are the members of this once-respectable society aware, that by these tergiversations they are making themselves very ridiculous in the eyes of the profession, and of that large portion of the public who are ever on the watch for matter of amusement?

MEDICO-CHIRURGICAL SOCIETY.

DR. M. HALL ON THE CURE OF NÆVUS.

To the Editor of the Medical Gazette.

SIR,

I BEG to reply, in a very few lines, to the observations contained in your note of my paper, read before the Medico-Chirurgical Society on Tuesday evening, March the 11th.

First, I beg to say that the reporter is wrong, in stating that I propose to use a *couching needle*. This observation gives an erroneous idea of the mode of cure which I do propose, and of the extent to which it may be applied. The kind of instrument I recommend is actually represented in the plate which accompanies my paper, and therefore there should have been no such mistake.

* * * * *

I am, sir,
Your obedient servant,
MARSHALL HALL.

[Dr. Hall finds fault with our reporter for calling the instrument which he recommends a *couching needle*. The gentleman who wrote the report is still at a loss for any better mode of describing the instrument, and was induced to call it so, because *such is the identical name given* *to it by Dr. Hall himself*, in his paper on the subject in this journal*. As to the remainder of the preceding letter, consisting of replies to the observations of Mr. Lloyd, Mr. Stanley, and Dr. Locock, we do not think it would be quite fair towards these gentlemen, to give Dr. Hall the advantage of studied replies to their oral remarks. Dr. Hall ought to have been on the spot, to answer the objections made to his paper.—Ed. Gaz.]

CURIOUS CASES OF SUICIDE.

Dr. Heyfelder, in a tract on self-murder lately published, gives an account of several curious attempts made by persons on their own lives. Among them is the case of a woman, who tried to accomplish her purpose by the application of 200 leeches; also of another, who exposed herself to swarms of bees; and an apothecary beat in his own brains with a pestle. But one of the most original modes of suicide among them is the following:—A builder, who was chagrined by the treatment he received from his employers, resolved to put himself to death. He wrote a letter, expressing his determination, and then hurried to a steep part of the high road, where vehicles of all sorts were obliged to put on a drag in the descent. Here he waited till a heavily-loaded waggon reached the spot, when, with the fury of a maniac, he seized hold of one of the wheels that was not locked, and, applying his body to the circumference, was presently crushed and ground as under a mill-stone. —*Medicinische Zeitung.*

LAMENTABLE ACCIDENT.

M. Bennati, whose late researches on the physiology of the human voice gained him so much reputation, lost his life a few days ago in Paris. He was run over by a restive horse as he was walking on the Boulevards, and suffered such severe injury (fracture of the skull, with violent concussion), that he died in twelve hours. He was buried with great pomp in the cemetery of Montmartre, and orations were pronounced over his remains by M. Julia de Fontenelles, in the name of one of the learned societies, and by M. Davel, on the part of his countrymen. M. Bennati was a native of Mantua, and but 36 years of age, when his career was so unfortunately suspended.

DISORDERLY FRENCH PUPILS.

M. Orfila has been obliged to suspend his lectures at the Ecole de Médecine, in consequence of the disorderly conduct of some of the students attending his class. We have not heard any reasonable cause assigned for this disturbance.

LITERARY INTELLIGENCE.

Preparing for publication, in one volume 12mo., A Dissecting Manual, containing a description of the Bones, Muscles, Vessels, Nerves, Absorbents, and Viscera, of the Body; together with their relative Anatomy, more particularly as relates to the Arteries. By Richard Partridge, Esq., junior Professor of Anatomy at King's College, London.

NEW MEDICAL WORKS.

Hippopathology: a Systematic Treatise on the Disorders and Lamenesses of the Horse, with their modern and most approved Methods of Cure. By W. Percivall. Vol. I. (to be completed in 3 vols.) 10s. 6d. bds.

Preparing for Publication.

The Surgical and Descriptive Anatomy of the Bones, Ligaments, and Joints. By W. H. Thomas, M.R.C.S. London.

WEEKLY ACCOUNT OF BURIALS,

From Bills of Mortality, *March* 18, 1831.

Abscess	1	Heart, diseased	2
Age and Debility	29	Hooping-Cough	7
Apoplexy	4	Inflammation	46
Asthma	9	Bowels & Stomach	4
Cancer	1	Brain	8
Childbirth	4	Lungs and Pleura	4
Consumption	62	Insanity	3
Convulsions	28	Jaundice	1
Croup	1	Liver, diseased	5
Dentition or Teething	4	Measles	5
Dropsy	5	Mortification	6
Dropsy on the Brain	15	Paralysis	1
Erysipelas	1	Small-Pox	5
Fever	4	Spasms	1
Fever, Scarlet	11	Unknown Causes	10
Fever, Typhus	2		
Gout	1	Stillborn	22

Decrease of Burials, as compared with the preceding week . . . } 9

METEOROLOGICAL JOURNAL.

(Not come to hand.)

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* See vol. vii. page 677, column 2, last line.

W. Wilson, Printer, 57, Skinner-Street, Londo

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THE
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SATURDAY, NOVEMBER 15, 1834.

LECTURES
ON THE
DISEASES OF THE CHEST,
In the course of which the Practice of
PERCUSSION AND AUSCULTATION
IS FULLY EXPLAINED,
Delivered at the London Hospital,
BY THOS. DAVIES, M.D.

LECTURE VII.
DISEASES OF THE LUNGS.

CATARRH.

Symptoms —General Signs.—We now proceed to consider the general signs of Catarrh.

At the period when the membrane commences to swell, and even sometimes before, the patient experiences a general lassitude and inaptitude to movement; he feels cold, a chilly air seems to run in an irregular manner between his skin and muscles, and this is more particularly felt in the back and loins; the sensation is at last so complete that it produces horripilation or rigor; the skin then contracts, its papillæ become elevated, forming what is called "chaire de poule," or goose skin;" the various functions of the body seem to have lost their energy, those of the brain evidently—perception, judgment, and reasoning—are confused; sometimes there is a singular exception to this, for those faculties become exalted for a time; the pulse is rapid but weak, the urine small in quantity and limpid. These symptoms are soon followed by irregular flushes of heat, sometimes occurring at one part of the body, sometimes at another, alternating with the cold and intermingling with it, so that the patient feels frequently, in consequence of the rapidity of these changes, the two different sensations in the same place, and almost at the same instant; at last an universal glow pervades the frame; the pulse remains rapid, but becomes full, the urine is still small in quantity, but high coloured, the skin expands but remains dry, finally a perspiration more or less copious comes on, the functions are restored, and debility alone remains. After this febrile attack there is then a remission of symptoms, to recur usually in the evening.

The other mucous surfaces of the body frequently sympathize with the bronchial mucous membrane; thus there is often slight diarrhœa, ardor urinæ, and nocturnal seminal emissions.

CAUSES.

Individual.—We now pass on to the causes; and first to those which relate to the individual. All ages, temperaments, and both sexes, are subject to catarrh, but you usually find that persons of dark complexions, dark hair, dark eyes, or of what is called the *bilious* temperament, are most subject to the mucous form, whilst the pituitous commonly attacks those of an opposite or lymphatic habit. There are other causes relative to the individual, and to which catarrh has been attributed, but I doubt whether correctly. It has been said that the suppression of epistaxis, of hæmorrhoidal discharges, of the catamenia, and of eruptions, will produce this disease. This is a leaven of the old humoral pathology. I will not take it upon me to say that these are not occasionally causes; but I never saw a case of catarrh that could fairly be attributed to them.

There are causes which greatly predispose the individual to this affection, such as fatigue, hunger, excess of any kind, as drinking, venereal excesses, and low and humid habitations.

External.—The first and great external cause of catarrh is certainly cold, especially when combined with moisture. Cullen has exceedingly well laid down the circumstances under which cold acts. In the first place it acts upon the body in proportion to its intensity. Secondly, according to its duration: if a person be exposed to cold for a long time, he will be more liable to its effects than if he be exposed only for a short period. Thirdly, according to the direction of the air on the body: it is well known that if it be directed in a current to a particular part, its prejudicial effect will be felt sooner than if the body generally be exposed to it. The most powerful circumstances, however, in inducing disease, are the variations from cold to warmth, and from warmth to cold.

There are other causes which may be said to be chemical, and which seem to act directly by irritation, viz. the inhalation of certain gases, as of chlorine and of sulphureous acid gas. There is, however, this remarkable difference between catarrh thus induced, and that arising from cold, that the former is shorter in its duration.

Epidemic Catarrh, or Influenza.—Catarrh occasionally assumes an epidemic character, and spreads widely over various regions of the earth. It occurred in the days of Hippocrates; it has occurred also in modern times, and doubtless in the intermediate periods: there happened five instances of it in the 16th century, one in the seventeenth, nine in the eighteenth, and three in the present. This form of the disease has received a variety of names: in France it is called the *Grippe*, the *Follette*, *Baraquette*, *Petite Poste*; in Italy, the *Influenza*, which latter name we have adopted.

It is impossible to form an accurate judgment from the works of old authors, as to what really was the nature of the epidemic which they called catarrhal: that the symptoms of catarrh predominated there can be no doubt, but it is extremely probable that they were combined with those of peripneumoina, or inflammation of the substance of the lungs. In the epidemic of 1782, Dr. Smith describes, besides the cough and dyspnœa, the following symptoms. It commenced with a great languor and oppression of the precordia, sighing, sickness, and great headache. The pulse was quick and irregular, and there was often nocturnal delirium; the skin was moist, with a tendency to perspire; the tongue white or yellow, muscular pains, erysipelatous efflorescence, sometimes ending in gangrene and death. The greatest danger was in the first forty eight hours, and it attacked particularly those who were healthy and robust. As auscultation was not then known, and morbid anatomy was but little cultivated, it is impossible for us to ascertain whether the epidemic was simple catarrh, or a combination of it with pleurisy or peripneumonia; but I should think that in all probability it was the latter.

The epidemic of last year, which I cannot pass by without alluding to, occurred in two forms. In the first, it prevailed in the form of common catarrh of various degrees of intensity: the second form was evidently a combination of catarrh and peripneumonia. I did not meet with a single severe case in which there was not crepitation in the inferior lobes of the lungs; the disease was, in fact, the peripneumonia notha of old authors: the *post mortem* examinations proved it, for the bronchial tubes were filled with secretions, and the substance of the lungs was engorged with a sero-sanguinolent fluid; here and there hepatization was apparent, but the disease generally destroyed the patient before extensive consolidation of the lungs took place: in old persons the engorging fluid was less red than in the young, the affection seeming to take an intermediate character between peripneumonia and œdema pulmonum.

The general symptoms of the *Influenza* differed from ordinary catarrh in the greater degree of violence with which they commenced, the febrile symptoms being commonly of a low or asthenic type, although they occasionally put on an exquisitely sthenic form: in the severe cases, the dyspnœa became extreme, the cough troublesome, and the expectoration difficult; frequently there were violent rheumatic pains, particularly in the respiratory muscles: the local signs consisted of wheezing of all kinds, sibilating, sonorous, and mucous; and I invariably found crepitation in one or other lung, indicating effusion into the cells: congestion, more especially in the brain, soon came on, in the young, generally inducing delirium; in the old,—a muttering coma, from which they could be aroused but with difficulty. These two last signs indicated a fatal termination.

What is the cause of this disease, and of its extensive prevalence? This is a question that has occupied the attention of medical philosophers from the period of Hippocrates down to the present time, but I cannot enter here into any elaborate details upon the subject. Hippocrates attributed it to Divine agency: others have supposed it to depend upon a certain condition of the electric state of the atmosphere; and others have attributed it to terrestrial emanations, particularly Sydenham. That certain diseases are caused by miasmata arising from the earth, there can be no doubt; we have the evidence of it in intermittent and remittent fevers; but these miasmata do not act far from the situation in which they are produced, whereas influenza prevailed over hill and dale, mountain and valley, over all countries, and did not seem to depend upon local causes. Epidemic catarrh sometimes took the course of the prevailing winds; but, like the cholera of India, it frequently travelled in the very teeth of them. In this country, the epidemic appeared in weather particularly favourable to the production of ordinary catarrh; but in other places it was most violent in fine weather. That there exists a cause is certain; it probably arises from some modification of the atmosphere, but this is not yet proved. It is best therefore to avow, what all who have thought upon the subject must feel, that we are perfectly ignorant of its nature.

Another question that has arisen is, whether the disease can be propagated by contagion? We have no proofs that it can, though it was formerly supposed that it might be so extended. The following story is told by Dr. Hugh Smith regarding the epidemic of 1782:—A soldier went on a furlough to St. Alban's; the disease had not previously been felt there, but it occurred after his arrival. One instance, however, is not sufficient to prove a general rule, and I think we have no cases which decidedly shew that the influenza was contagious.

Treatment.—We must now consider the treatment of catarrh. The disease in its mild form requires very little attention; it is usually sufficient to place the patient in bed in a warm room, and give demulcents, to determine to the surface, and in a few days the disease subsides. I generally give, for the purpose of inducing perspiration, the liq. amm. acetatis, combined with small doses of Dover's powder and camphor mixture. The patient usually soon recovers his strength, and any ordinary tonic, given after the febrile symptoms have subsided, may be then administered.

But if the disease be violent, if there be much dyspnœa, much oppression at the chest, and the cough is very irritating, then it may be necessary to diminish the powers of the system by venæsection, or by leeching. The quantity of blood abstracted must be proportionate to the strength of the patient, and to the intensity of the disease: it is impossible to give any other general rule. Blisters are sometimes employed, but I should recommend you not to use them during the febrile state, for they produce considerable irritation, and add to the disturbance of the individual, without being of any benefit. But when the dyspnœa or oppression continues, or if the expectoration be difficult, then they are of great advantage. Another indication is to facilitate expectoration, and for this purpose ipecacuanha is with me a very favourite remedy. It may be given in doses of one grain every four hours. Tartar emetic has been exhibited with the same view, but I think ipecacuanha is better; it is not so liable to purge or depress. On the continent it is the custom to give emetics, and they are very useful, particularly to young children who, although they expectorate, do not spit out the secretion, but swallow it, and the result is, that the stomach becomes disordered. In adults, squills and ammoniacum are frequently of great service, but you must beware of exhibiting them to children or persons of irritable fibre, or when the disease still exists in the acute form: they are best exhibited towards the termination of the catarrh, when it tends to become chronic, and when the secreted matters are viscous, tenacious, and consequently difficult of expulsion.

One of the most teazing symptoms is cough; it commonly disturbs the patient far more than any thing else. The cough, as I have already said, is first caused by the dryness of the passages, and then by the acrid secretion. To obviate this, you may give demulcents, as oily emulsions, barley-water, linseed-tea, &c.: they seem to act mechanically, by forming an artificial mucosity, which lubricates the parts; sipping even water for a certain time will relieve the irritation, and free the patient for some hours. Sometimes the cough is so violent that the patient cannot obtain any rest, and opium then, especially after the febrile symptoms are over, is one of the most valuable remedies we possess: it acts like a charm, and gives time for a proper secretion to form.

As to the treatment of epidemic catarrh, or influenza, we have only the experience of the past year to guide us, and it was found that the moderate form required very little treatment at all; it was merely necessary to put the patient in bed, and give demulcents. In the acute, the treatment then became a matter of serious importance. Patients did not bear depletion generally, although there were exceptions to this rule, in the young and plethoric especially. Finding that there was always crepitation in the inferior lobes of the lungs, it appeared to me that mercury was one of the most proper remedies to be used, not only to subdue the inflammatory action, but to occasion absorption of the fluid effused into the air cells. I will mention one instance, strikingly illustrative of the advantageous effects of this mode of treatment. It happened to be my duty to admit the patients into this hospital, one week during the period when the epidemic was at its height: expecting a great many applications, the Committee placed at my disposal thirty-two beds, and these were all soon filled with individuals labouring under the severe forms of influenza—so severe, that I firmly believe, if these poor people had been allowed to wander about the streets, or to remain at their own homes, with the insufficient attention they could there have obtained, they would for the most part have perished. If I recollect rightly, only one or two of these patients were bled, but they were all placed under the influence of mercury. This treatment commenced on Thursday, and by Saturday night all who were affected in the usual way by the remedy, safely and ultimately recovered, with the exception of two, and one of those had hypertrophy of the heart, with diseased aortic valves.

I should state that I never, if I could avoid it, carried on my plan to salivation, but merely rendered the mouth tender, and kept it so for a week or two. It was necessary that the action of the mercury should be prompt, and we found that the most quick and efficacious means of effecting it, was the rubbing in the linimentum hydrargyri.

The common people have a mode of treating catarrh which is occasionally successful; it frequently destroys the disease at once; but if it does not produce that effect, it will do great mischief, and perhaps destroy the patient. It is by taking wines, spices, and things of that description. The good effect of these means is produced by inducing copious perspiration; but these remedies are pregnant with high danger, if the patient be young and plethoric, and of firm fibre, or if there be dyspnœa, heat and oppression of the chest, and hard dry cough. I may here remark in passing, that there is scarcely an opinion entertained by the people at large as to the mode of treating disease, however erroneous it may be, which does not owe its origin to some old and exploded theory. This is the mode proposed by Van Helmont, but has long been disused by medical men.

Treatment of Acute Laryngitis.—The principles upon which the treatment of acute laryngytis should be founded, are similar to those of any other severe catarrh; the difference is only in the promptitude and activity with which the remedies should be administered. You will recollect, gentlemen, that the danger, and imminent indeed it is, depends upon the degree of swelling of the mucous membrane lining the rima glottidis; the more it is swollen the narrower the orifice becomes, and the smaller the column of air.

The first remedy to be used is general bleeding, and that should be carried to an extent proportionate to the intensity of the symptoms and the powers of the patient. If after bleeding, perhaps once or twice repeated, the symptoms are only slightly diminished, then leeches or cupping may prove of service; and here I may recommend you to follow the advice given by Dr. Farre, in his excellent lectures upon this subject, which is, not to apply leeches over the external surface of the larynx, but rather along the line of the clavicles or the neck, as they often induce an œdematous state of the skin or ecchymoses, which occasion a stiffness of the parts, and add to the suffocating feelings of the patient. Blisters may also be applied upon the chest, or nape of the neck, but not over the inflamed part, and for similar reasons to those above stated; indeed, there is another reason why blisters should not be applied upon the throat, which is, that, if tracheotomy be necessary, you would then have to cut through the inflamed skin, by which the operation would be rendered more difficult.

There is no remedy of more importance and utility in this case than mercury; it is useless to employ it in small doses, for its effects must be produced rapidly—often, if possible, within a few hours: if given internally to an adult, not less than three or four grains of calomel should be administered every two hours until the mouth be rendered tender: but I do not depend upon it alone; I always direct a considerable quantity, as one or two ounces of ung. hydrargyri fortius, or the linim. hydrargyri, to be rubbed in for an hour or two, and to be repeated in three or four hours, using it without limitation until the patient is relieved. You must not be afraid of the remedy, and you will often be rewarded by seeing a permanent relief afforded as soon as the mouth is affected.

But it sometimes happens that even mercury is insufficient, or that you may be called in so late that there is no time to employ it: you perceive your patient convulsed with distress—suffocating—struggling with death—and not a moment is to be lost; then, gentlemen, the only means you possess is to establish a communication between the trachea and the air by forming an opening below the inflamed part; this is done by the operation of tracheotomy, for the description of which I refer you to your surgical works.

CHRONIC MUCOUS CATARRH.

Chronic mucous catarrh is the common infirmity of old age; it not unfrequently, however, occurs in children, particularly as a consequence of whooping cough. This disease may persist for many years.

Morbid Anatomy.—The mucous membrane is in this case usually of a pale violet colour, in patches: sometimes in old persons it has been seen very pale, or of a yellowish tint, mixed here and there with red. Dilatation of the bronchial tubes frequently accompanies chronic mucous catarrh.

The secretion is generally of a less viscous quality than in the acute form, but more opaque; its colour is yellow, varying to grey or green; it is sometimes clouded with a dark tint, supposed to arise from a mixture of black pulmonary matter; it frequently happens that the yellow sputa are seen to float in a transparent viscous, or pituitous fluid: these sputa are commonly diffluent, but occasionally of an irregular round form; the secretion is usually inodorous, sometimes it has the smell of pus, or the discharge from a blister, or even that of gangrene of the lung: the quantity of the expectoration varies of course according to the extent of the disease; there have been thrown up as much as two or three pints in twenty-four hours.

Local Signs.—The mucous rattle is one of the most common sounds heard in this disease, and to an extent proportionate to the tubes affected; the deep sonorous wheeze, and sibilation even, may be distinguished when the mucus is tenacious; but these latter sounds are not permanent, for a strong act or two of respiration, or a cough, will remove the secretions, and occasion these noises to cease: there is rarely a total suspension of the respiratory murmur, as in the acute mucous catarrh; but sometimes the necessity for respiration is so increased, that the puerile respiratory murmur may be heard nearly all over the chest. It then constitutes one of the forms of the disease we shall hereafter describe under the name of *Humid Asthma.*

Functional and General Signs.—Laennec describes, with the most perfect accuracy, the symptoms and course of this affection, in the following manner:—

"This disease is most commonly consequent upon severe acute mucous catarrh. The fever ceases without any diminution of the cough or expectoration, or changes into a slow fever hardly distinguishable, except in the evening. The patient recovers his strength and appetite, but generally remains paler and becomes thinner: in a state of repose, he breathes easily; but during exercise, with difficulty: sometimes after having lasted for many months, or even a year or two, it gradually disappears, and leaves no trace, and this occurs particularly in young persons: more commonly the expectoration and cough diminish, and even disappear in summer, although even then the patient is subject to catarrh in the dry and latent form: in winter it again becomes mucous and evident, and often its return is accompanied by fever, particularly if the expectoration be abundant: after many returns of this kind the affection remains permanent, and in most cases, although the patient become weaker and thinner, the pulse and heat of the skin continue natural."

I have occasionally seen so large a quantity of secretion formed as to suddenly and completely obturate a large bronchial tube, so that the dyspnœa became instantly increased to such a degree as to threaten suffocation: in these cases relief was only obtained by a copious expectoration: this may be classed under one of the causes of humid asthma. If the secretion accumulates, and there be no power of expectoration, the disease is then called *Suffocative Catarrh.*

In some rare cases, hectic is established, the patient becomes exceedingly thin, and the disease terminates in death: indeed, so completely does chronic mucous catarrh put on then the appearance of tubercular phthisis, that none but stethoscopic means could possibly distinguish them. The following case will exemplify this fact:—

About seven or eight years since, Mr. Fuller, the surgeons' instrument-maker, living near this hospital (who permits me to use his name), was supposed to be in a state of hopeless consumption; I was requested to see him, and found he had been labouring for some months with severe cough and dyspnœa; the expectoration was puriform and copious, emaciation great, fever of a hectic character, having evening exacerbations, and terminating in night sweats, and the pulse always very rapid. The functional and general signs of tubercular phthisis were so very evident that I was hardly disposed to fatigue him by a local examination; however, upon doing so, I found no pectoriloquy, no cavernous cough or respiration, no local evidences whatever of tubercles in the usual situations, below the lines of the clavicles, but the mucous rattle was universal; here, then, was quite sufficient, in the extent of the mucous catarrh, to account for the symptoms without supposing a tubercle to exist. Leeches were frequently applied to the chest, blisters still more so, so that at one time I might say he had on an epispastic waistcoat: nauseating expectorants were given, and in a few weeks he perfectly recovered. It is in doubtful cases, like this, where auscultation is indeed of high importance.

Treatment.—There are three indications to be observed in chronic mucous catarrh: 1st. To relieve any inflammatory congestion. 2d. To free the expectoration. 3d. To give tone to the bronchial capillaries and to the general system.

First Indication.—To relieve inflammatory congestion. It frequently happens, especially during great atmospheric changes, that the acute form of mucous catarrh will be superadded to or grafted on the chronic, and the patient's distress of breathing will considerably increase; in this case, if he be young, the abstraction of blood by leeches, or cupping, is useful; and even in old persons, if the oppression be great, I often apply a few leeches upon the sternum with advantage; general bleeding is rarely borne, I will not say that you should never have recourse to it; but you certainly should not, except the inflammatory symptoms be urgent, and the patient possess sufficient power.

Second Indication.—To free the expectoration. One of the best means of fulfilling this indication is by an emetic; it is particularly useful where the secretion is large and difficult of expulsion. The medicaments, called expectorants, are but uncertain in their operation, but we have a considerable list of them in common use; thus, ipecacuanha and tartar emetic answer best in young persons, or when an inflammatory state exists: but the aged, or those of weak, lax, and lymphatic temperaments, are most relieved by the stimulating class, as squills, ammoniacum, copaiba, tolu, turpentine, myrrh, &c.: the sulphate of zinc has been exhibited with some advantage, but I think the most powerful of all is the sulphate of copper; I am in the habit of frequently using it where the secretion is copious and viscid, and in doses of a third or half a grain dissolved in water three or four times a day.

Inhalations of tar vapour, or of chlorine, prove frequently of advantage in chronic mucous catarrhs. Blisters are of great use, particularly if the oppression or dyspnœa be considerable.

The third Indication is to give tone to the bronchial mucous membrane and to the general system. This is fulfilled, as far as relates to the membrane, by many of the expectorants already mentioned, especially those of a stimulating kind, but the direct tonics should also be combined with them, as the quinine, cascarilla, gentian, acids, &c.

One of the best tonics is passive exercise, combined with change of air, when the weather permits, as sailing and riding. I have known many instances of persons recovering from chronic catarrhs after long journies, if these were not performed too hastily, so as to occasion fatigue.

I need not say that all the remote causes should be avoided; above all, exposure to rapid atmospheric changes; indeed, you will find it necessary to confine persons afflicted with this disease, in warm rooms during winter, for the purpose of obviating this cause.

PATHOLOGICAL LECTURES,

Delivered in King's College, London,

BY

PROFESSOR MAYO, F.R.S. &c.

Surgeon to the Middlesex Hospital.

IV.—*On Caries.*

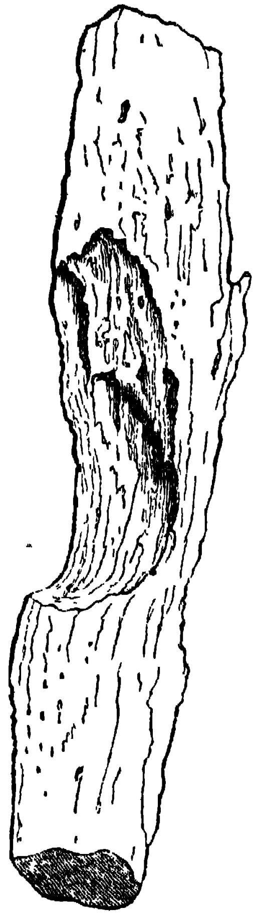
What an ulcer is in the soft parts of the frame, caries is in bone. Both of these affections are ordinarily preceded by inflammation, and are prevented when that inflammation can be arrested and subdued. Both in their progress are attended with inflammation. Both are often accompanied with partial death (gangrene in the one case, necrosis in the other) of the parts attacked. In both there is an absorption of substance, producing an excavation, commonly associated with an unwholesome and irregular growth from the ulcerated surface.

As there are different kinds of ulcers, so are there different kinds of caries: they may be divided into simple, strumous, syphilitic, and those which attend lupus and cancerous ulceration. At the same time it must be observed, that it is not always possible rigorously to distinguish each of these varieties. In some instances it is difficult to determine satisfactorily whether caries is simple or scrofulous; in others, whether it is scrofulous or syphilitic: so that persons well and equally conversant with disease might differ in opinion upon the nature of particular cases, who might yet admit the justness of the foregoing general distinctions.

The clearest instances of simple caries occur in the shafts of the long bones,—of syphilitic caries, in the shafts of long bones and in the cranial bones,—of strumous caries, in the flat bones, and round bones, and articular ends of the cylindrical: thus there exists in particular bones a susceptibility of particular forms of caries. For this and other reasons, I am disposed to make difference of structure in bone the basis of my arrangement in describing the varieties of caries.

I. The shafts of the long bones are liable to be affected with simple caries, syphilitic caries, and caries from cancer.

a.—The adjoined figure represents a simple caries of the fibula. At the excavated part, to borrow an expression of Mr. Syme's, the surface in the dry bone has the appearance of loaf-sugar, which has been partially dissolved by dipping into hot water. The excavation is irregular; its surface soft and porous. The



adjacent bone is enlarged from inflammation, and its cortex is likewise unusually porous, but hard.

The patient, a man past the middle age, had suffered many years with a large ulcer on the outside of the leg, which would sometimes partially heal, and then again spread to its former size. Over the fibula the ulcer was deeper than elsewhere. The appearance of the granulations was not the same at different parts of the ulcer. The portion of the surface, again, which was healthy at one time, would shortly after assume an unwholesome character, while the first became covered with florid granulations. Upon the greater part of the ulcer, the granulations were generally grey and flaccid, or greenish, or yellow and unorganized. A probe passed into the granulations covering the fibula, broke easily through a soft and gritty texture. The limb was amputated below the knee, in the Middlesex Hospital, in 1819. The tibia was found to be inflamed and enlarged. The patient died.

Simple caries is a consequence of inflammation of bone in a constitution deficient in vigour. The tibia is the most frequent seat of the disease. -It has inflamed, but instead of gradually recovering, or forming a clean abscess, or disengaging a necrosis and undergoing a wholesome reparation, a portion of the enlarged crust softens, the cancellous structure within softens, and in place of marrow, a thick brown fluid occupies its cells. The disease is often coupled with necrosis:—a sequestrum has come away; the adjacent bone is carious. It may again be associated either with a single cavity or with irregular channels, containing pus; that is to say, with abscess. The external appearance of the limb is the same in necrosis and caries: the bone appears enlarged, and one or more sinuses open through the skin, at points where the integument is red, and soft, and sunken, and undermined.

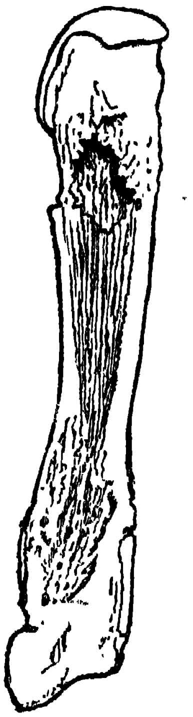
The degree of hardness of bone varies in different instances in caries. There is in our museum a caries of the great trochanter, in which the diseased surface, though worm-eaten, is hard and solid.

Mechanical injury is a frequent cause of caries in the shafts of long bones.

The principles upon which this disease is to be treated are the following. As the disease depends upon inflammation, the remedies, general and local, which are calculated to remove inflammation of the bone, are to be employed. If these fail, as the diseased surface of an ulcer may be destroyed, so may that of a caries. But I think the removal of the diseased bone with the trephine and the chisel and the knife, preferable to its destruction by the cautery. The surgeon must bear well in mind, on this occasion, that the resources of his patient's constitution admit of being exhausted; that he may die while he is in a protracted progress of cure; and that the amputation of the limb may be sometimes preferable to the attempt to extirpate a caries.

c.—In the following figure is represented a syphilitic caries of one of the metatarsal bones. There is upon it a growth of porous bone, in two patches; the porous growth towards the lower part being riddled with irregular holes, and that towards the upper part being furrowed by longitudinal grooves. Near the head of the bone the cortex is ulcerated through, and the cancellous structure is laid bare, which had taken on the same action with the crust. In this skeleton, almost all the bones presented more or less of the same appearance.

Syphilitic caries is attended with very little enlargement. The inflammation with which it begins occupies either the periosteum alone or the periosteal surface of the bone; the periosteum thickens, and is often exquisitely painful. This renders it sometimes necessary, at an early period of the disease, to make an incision down to the bone. Occasionally, under these cir-



cumstances, a thick, viscid, glairy matter, not unlike honey, is found in cells of the periosteum. The inflamed and thickened periosteum, with more or less of porous growth of bone below it, constitutes *a node*. The cylindrical bones most frequently attacked with nodes are those which are subcutaneous—the tibia, ulna, clavicle.

In the natural progress of a node, the integuments covering it inflame and ulcerate; the skin, before breaking, has a livid colour; afterwards, the skin surrounding the ulcer has the same hue. The edges of the ulcer are commonly a little raised, and its outline irregular, and its surface is covered with unhealthy granulations and viscid ash-coloured secretion.

Syphilitic caries is often attended with partial necrosis and exfoliation.

I am not prepared to say to what extent mercury, given injudiciously, may contribute to produce syphilitic inflammation and caries of the bones; but this I know practically, that nodes frequently yield rapidly to the cautious exhibition of mercury; and that if a patient affected with nodes has not taken mercury, and is not greatly extenuated, or of a marked scrofulous diathesis, mercury alone or with sarsaparilla is the most likely remedy to succeed in at once arresting the disease. When mercury has been used with or without good effect, iodine is commonly found of striking benefit. In this capricious malady, every case is a separate study; and the skill of the practitioner is principally evinced in timing the *succession* of remedies, by which it is to be subdued.

d.—The skin is sometimes the seat of cancer. I witnessed a case in the Middlesex Hospital, in which Mr. Cartwright amputated the leg, for a cancer over the tibia. There is in our museum a tibia from a patient affected with the same disease. The tibia is deeply excavated, having suffered a passive ulceration in the progress of the cancer.

II. The flat bones are liable to every form of caries.

a.—Simple caries is not frequent in the flat bones: from their place, when it occurs in them, it is serious and intractable. I recollect an instance, under the care of Mr. Cartwright, in the Middlesex Hospital, of caries of the ilium from a pistol-shot. The patient, after lingering some months, died. In another case, which was under my care, a patient died with caries of the ascending plate of the ischium, connected with urinary fistula.

b.—Strumous caries often attacks the flat bones.

A young man, about twenty-five years of age, became my patient for caries of the bones of the head and face. A small exfoliation had taken place from the os malæ of the left side, and from the right superciliary ridge. The integuments of the right side of the forehead were swollen, puffy, and tender; there was a discharge from the nose, and a part of one turbinated bone was necrosed. No ground existed for supposing that the disease was of syphilitic origin. This patient was cured by the use of iodine, which I have found much more useful in strumous diseases of the bones than of the joints; and, when given in alternation with other tonics, than when persevered in singly for a long continuance.

A gentleman, ætat. 37, in whom the strumous diathesis is strongly marked, consulted me for caries of the palate. The incisor alveoli of the upper jaw were carious also; but this he attributed to a blow. He was liable to inflammation of the tonsils, attended with ulcers. I believe the complaint was not syphilitic. His sister, about whom I was likewise consulted, had caries and partial necrosis of the turbinated bones. Both patients recovered under treatment suited to scrofula.

The sternum is frequently the seat of strumous caries. In connexion with this complaint, matter sometimes accumulates behind the sternum in the anterior mediastinal cavity; for the liberation of which the use of the trephine may be necessary.

In giving an account of a case of spine affected with scrofulous disease, in which the vertebræ were softened and beginning to ulcerate, Sir Benjamin Brodie adds, that "the ribs were porous, their cancelli being filled with a curdy matter; they were soft, so that they might be divided with a scalpel. Four of the ribs were separated from their attachment to the spine, and were ulcerated as far as their tubercles."

c. The cranial bones are frequently the seat of syphilitic action. The inflammation begins on the pericranial surface, but it frequently extends through the cancellous structure to the inner table. Portions of the inflamed bone often become necrosed. There is nothing in the appearance of syphilitic caries of the cranial bones to distinguish it from strumous caries. The extent of the caries (seldom considerable in scrofula), and the affections with which it is actually combined, or which have preceded it, are the only circumstances which direct our diagnosis. In dry specimens of syphilitic caries, the outer surface appears worm-eaten — perforated by ulcerated holes of different sizes; while in connexion with this, the inner table often is swollen, and porous,—prominent in irregular and broken, but smooth and shallow, edges.

A close affinity exists between the cachectic states produced by lues and scrofula. The resemblance holds not only in the features of disease, but in the remedies which are serviceable in common to both. The extreme and decided cases of the two affections are, indeed, strikingly dissimilar, but there is a neutral ground, where the two are confounded.

d. There is a form of caries which is frightfully destructive of the bones of the face. It is called *lupus*, or *noli me tangere*. It commences in the soft parts, and the bones are secondarily affected. The ala nasi is the part first attacked. The skin covering the ala nasi becomes red and hard, and ulcerates, the ulcer presenting a yellow lardaceous surface. The ulcer slowly spreads, the circumference of red and hardened skin extending with its enlargement; it gradually destroys the cartilages of the nose, the ossa nasi, the upper maxillary bones, the spongy bones, and finally attacks the frontal. The patient then perishes of inflammation of the meninges of the brain. The bone, in this disease, does not seem to be merely passively absorbed; it inflames before it ulcerates: at least, in one of two specimens in our museum, there are light ridges of porous bone formed upon the os frontis, near the boundaries of the ulceration.

The disease, when taken early, may be eradicated by the destruction of the parts attacked, with caustics. But it always has a tendency to return; nor is any medicine known to have the power of specifically correcting the latent organic vice on which it depends.

e. The lower-jaw rather deserves to be classed among the cylindrical than the flat bones: it is liable to ulcerate under two forms of cancer.

Carcinoma occasionally begins in the glandular parts at the angle of the jaw. When the ulcerative stage comes on, it involves the bone, which is absorbed to the level of the cancerous ulcer which surrounds and includes it.

f. There is another disease, which is called cancer of the lip. It is commonly produced by fretting a cracked surface of the lip. It presents the appearance of a deep ulcer in dense and indurated texture. The disease has not the malignancy of cancer. When removed by excision, it does not commonly return. This disease is sometimes allowed to make considerable progress before the patient will consent to an operation; in which case, great part of the lip may have been destroyed, and the induration may have extended to the gums, and periosteum of the jaw. The bone, however, is not involved in it; so that even then, at the expense of the mutilation, the disease may be eradicated, all the soft parts attacked being removed, and the thickened periosteum entirely scraped from the bone.

III. The round bones, and the articular extremities of the cylindrical bones, are especially subject to strumous caries. The instances, even, which might admit of being considered as simple caries, most frequently occur in persons of the scrofulous diathesis.

Syphilitic caries very rarely attacks the round bones: I have seen but one instance in which this happened. The pain and tenderness with which, at one stage of lues, the joints are affected, appears to have its seat in the ligaments, not in the bones.

The round bones, again, are rarely ulcerated through cancer; not that they are less susceptible of this mode of caries than other bones, but that cancer very rarely occurs in their vicinity.

In caries of the round bones and of the articular ends of cylindrical bones, the disease derives its character and importance from the destruction with which it threatens the contiguous joints. The soft textures of the articulation are forced into disease by the irritation of the neighbouring caries. This order of the invasion of disease, is, however, of course often reversed; and caries of the articular aspects of bone secondarily produced by the extension of inflammatory action from the cartilages. The compound diseases which are thus originated, will be considered in the lectures on the pathology of joints. On the present occasion, I shall limit myself to describing such appearances in the round bones and articular ends of the long bones, as certainly do not originate in the extension of disease from the special articular tissues; and which have been, with more or less correctness, considered either to be caries, or the state which precedes it.

1. The bones adjacent to a diseased joint are sometimes soft, so as to be readily cut with a knife, and to yield and break down under pressure; without, at the same time, any increase of vascularity existing, or change in the appearance of the medulla. This softened state of the bones is occasionally misrepresented as disease. The surgeon, after displaying the morbid alterations of the cartilages and synovial membrane of a joint, proclaims the bones diseased, because they want their usual hardness. When, however, the appearances are limited to those which I have described, the bones are not diseased: they are merely atrophied, their osseous tissue wasted;—instancing the first of the forms of atrophy which were described in the second lecture.

2. The form of caries which, in the class of bones specified, comes nearest to simple caries, is one that commences in the articular aspect of bones, and is often for a length of time—for months, I believe—confined to it; occupying, for this long period, the thickness of a line only, although eventually capable of spreading deeper into the bone.

I amputated the leg of a patient, 25 years of age, five months after a compound fracture of the tibia and fibula. The bones had shewn a disposition to unite, but the general inflammatory swelling of the limb which supervened upon the accident, never subsided. Large collections of matter formed in the calf of the leg and about the ankle. These were opened in succession, and the patient as many times rallied from the hectic fever and exhaustion which they produced. At last there formed above the knee joint an extensive abscess, which was opened, when a profuse discharge of matter took place, and afterwards of blood and matter alternately. It was now that the limb was amputated, but too late to save the patient. In the knee and ankle-joints the cartilages were found partly absorbed, and what remained reduced to a thin shell. The articular aspect of the bone, which had become exposed, was highly inflamed. The narrowed and thin shells of cartilage which were left, were found to tear very readily from the bone: when torn off, the detached surfaces were found to be covered with bony particles, shewing that the separation must have been effected by rupturing the inflamed surface of the bone. On further examination, the whole articular aspect of the condyles was found to be highly inflamed and softened, for the depth of one to two lines. The bone beyond was perfectly healthy.

E. D., ætat. 20, was admitted in November 1833, into the Middlesex Hospital. Three years previously she had been attacked with pain and swelling of the left elbow-joint, which being treated with leeches and embrocations, went away in nine months. Shortly after her recovery the left knee began to swell at the lower and fore part; the swelling was attended with pain, which, although constant, was severe at times only: she thought it rheumatism, and wore flannel round the joint. A year before her admission the disorder in the knee became more serious; at times it confined her to her bed. The joint was hot, stiff, and painful. Several blisters were then applied in succession, and with some advantage. Leeches, fomentations, cold embrocations, bandaging, were tried, but were ineffectual. At the time of her admission, and for a month previously, she had been suffering the acutest pain, which the least pressure or motion aggravated to intensity. The knee was hardly swollen; it was a little bent. There was no impediment to further flexion but the pain it gave. The pain was severest beneath the patella; it extended through the thigh and leg. Having tried local bleeding, fomentation, a large issue, and opium, without any mitigation of her intense suffering, I amputated the limb.

Upon opening the knee joint, the capsular synovial membrane was found to be inflamed and thickened, presenting a jelly like granulated surface, which extended a little way over the cartilages of the condyles. The cartilages were but partially ulcerated towards the joint, and for a very small extent; but they tore readily from the bones. There were parts at which it was evident they had been already discontinuous, the surface of the cartilage being slightly excavated, and the opposite surface of the bone ulcerated, and extremely vascular. At other parts the cartilage tore away with it numerous granules of bone. This arose from the surface of the bone, for the depth of a line to two lines, having been highly inflamed, and softened in its texture. Beyond the immediate surface the bone was perfectly healthy.

The preceding form of disease, commonly attended with severe pain, is, I believe, always connected with inflammation of the contiguous synovial membrane. Rest, and blisters in the vicinity of the joint kept open by irritating dressings, and issues, form the appropriate local treatment of this affection, which, when taken early, may probably be subdued.

3. The common appearances denoting scrofulous inflammation in bone, are, soft-

ness from deficiency of bone-earth, increased vascularity of the medullary membrane, and, in the place of medulla, a thick reddish-brown fluid in the cancellous structure.

In the ankle-bones of a child six years of age, examined immediately after amputation, I found the following appearances. The cartilage covering part of the posterior and upper surface of the astragalus had been absorbed; the cancellous structure below it was superficially ulcerated, and for a considerable depth was soft, as if rotten, its cells containing a thick brown fluid. The texture of the anterior part of the astragalus was healthy. When a horizontal section of the os calcis was made, about a third of its substance appeared healthy; the remaining and greater part had the brown and rotten appearance and consistence of the astragalus. The lower extremity of the tibia was in the same condition.

Sir Benjamin Brodie thus desoribes the appearance of the elbow-joint of a boy about ten years of age:—

"The cancellous structure of the articulating extremities of the os brachii, radius, and ulna, was so soft, that it might be crushed by a very slight degree of force, when squeezed between the fingers. It was of a dark red colour, preternaturally vascular, and there was a reddish fluid, mixed with medulla, in the cancelli."

4. The appearance, which constitutes the most undoubted sign of strumous action, is the deposition in the cancelli of tuberculous matter—an unorganized substance, in colour yellow, and of the consistence of curd. The following instances are from Sir Benjamin Brodie's treatise on the Diseases of the Joints:—

William Miles, ætat. 23, underwent amputation of the leg, for disease of the knee. "On examining the knee, the articulating extremities of the tibia and fibula were found so soft that they were readily cut with a common knife; they contained much less earthy matter than is usual, and their cancelli were filled by a yellow cheesy substance."

Charles Miller, ætat. 20, underwent amputation of the foot. "The extremities of the tibia and fibula, all the bones of the tarsus, and the extremities of the metatarsus, contained much less earthy matter than is usual. They were so soft that they might be cut with a scalpel without the edge being turned. They were preternaturally red and vascular, and a yellow cheesy substance was deposited in the cancelli."

Strumous inflammation of bone is generally characterized by its insidious march, the gradualness of the local swelling, and the absence of pain which attends it. Even when the soft textures within the contiguous joint are in process of secondary ulceration, the suffering is often comparatively trivial.

There is no reason to doubt that the disease, in its early stage, may be arrested by judicious remedies, of which the principal local means is the maintaining perfect quietude in the affected joint; and the general means, the observing those rules of diet, and medicine, and general habits, and place of residence, which tend to correct the strumous diathesis. Even when the disease has strongly established itself in a joint, there is still a remedy in amputating the limb, which is unquestionably to be resorted to if the organization of the joint is completely destroyed, and the patient's health is rapidly failing, yet no vital organ seriously affected, and strength enough left to bear the operation. To decide upon the propriety of operating in cases of less urgency, is an extremely difficult task. In some cases, where the constitutional tendency to scrofula is slight, the patient has been permanently restored to health by losing a scrofulous joint. In other cases the local disease appears to be a vent to the specific action; and when that vent no longer exists, scrofula manifests itself in other more important organs, and the patient perishes but the more rapidly.

It may happen, however, that the organs invaded (upon this hypothesis) by the returning disease may not be vital parts. Mr. Cartwright amputated a scrofulous knee in a girl seventeen years of age. Shortly after the stump had healed, several large strumous abscesses formed in different parts of the body; they broke, and the patient was reduced to great exhaustion. Nevertheless she recovered, the strumous action having fortunately fallen on the intermuscular filamentous tissue only. When the disease attacks a small joint, it is probable that the patient is in less danger of a return of strumous action on its amputation. Disease of the joint of the ball of the great toe is such an instance. In this case the place of the disease renders the patient particularly desirous to have it removed. The operation is one often performed; besides the joint, as much of the metatarsal bone being taken away as is altered in structure. I was greatly disappointed, when a gentleman, upon whom I performed this operation, after recovering perfectly, and acquiring the appearance of restored health, was in a few months attacked with symptoms of pulmonary consumption, of which he died.

It seems natural to suppose, that if there is a doubt about amputating a scrofulous joint in a patient otherwise free from disease, it would, *a fortiori*, be improper to remove the part, when scrofulous disease has already manifested itself in other organs. But it has been instructively pointed out by Sir Benjamin Brodie, that the removal of a scrofulous joint will sometimes palliate, or arrest, existing scrofulous disease of the viscera. He narrates a very illustrative case in these words:—

"A young woman was admitted into St. George's Hospital, labouring under a scrofulous affection of the ankle. It was of long standing, and there were several abscesses communicating with extensive surfaces of carious bone. It was evident that there was no chance of cure for the disease in the joint. Nevertheless, I did not think it right to propose to the patient that she should submit to the loss of the limb, as she had a troublesome cough, with a purulent expectoration, and other marks of pulmonary disease. She, however, earnestly implored that the ankle might be removed; and at her request, and certainly against my own judgment, I performed the operation. The stump healed readily. The pulmonary symptoms almost immediately subsided. She lived for four or five years in tolerable health; but at the end of that period (as I have been informed) there were again manifest indications of disease within the chest, of which she ultimately died."

It is to be borne in mind, that in scrofulous affections of the joint, left to pursue their course, it is not the articular disease which is directly fatal. The patient through it, indeed, is debilitated,—exhausted with hectic fever; but that exhaustion has to produce disease in the mesentery or lungs, or in both, to prove the immediate cause of dissolution. The surgeon has then to consider whether the removal of the limb is most likely to avert the fatal visceral disease, by saving the patient from the exhaustion which promotes it,—or to accelerate its progress, by removing the vent for strumous action, which the diseased joint affords.

ON THE HYDRATED OXIDE OF IRON,

AS AN ANTIDOTE FOR ARSENIC.

To the Editor of the Medical Gazette.

Sir,

In consequence of some experiments which have been lately instituted by MM. Bunsen and Berthold, at Gottingen, from which they concluded that they had discovered an antidote for arsenic acid, in what they term the hydro-oxide of iron, I was anxious to determine how far the same oxide might be useful in rendering arsenious acid insoluble in the stomach. Upon reading an account of their experiments, as published in the Lancet, I was surprised to find that the arsenic, and not the arsenious, was the acid operated upon; because it is well known that the latter is constantly employed in this country for the purpose of destruction; and moreover, there are not more than two or three cases on record of poisoning by the former; and in these the acid was, I believe, combined with potass. The discovery of an efficient means of preventing the destructive effects of arsenious acid, has, indeed, long been a desideratum, but unfortunately, even those substances which are capable of forming insoluble compounds with this poison out of the body, such as sulphuretted hydrogen, lime &c., have by experiments, sufficiently often and carefully conducted, been found utterly useless when administered as antidotes; for even when previously combined chemically with the acid, so as to form such insoluble compounds, and introduced into the stomach, they have not been found capable of preventing the poison from manifesting its deleterious effects. But whether these effects be produced by any power which the stomach may possess of decomposing the substances introduced, and in that way setting free the arsenious acid, or whether the gastric secretions themselves be capable of exerting a solvent action on them, without any decomposition, and so allowing of their passage into the circulation, must, I fear, remain a matter of conjecture. Cases, indeed, have been recorded, in which life was apparently saved by the administration of such inert substances as charcoal, magnesia, &c., but there can be little doubt but that these acted by protecting the coats of the stomach from the action of the poison, until it could be removed from that organ. Should the following experiments therefore appear of sufficient interest, I shall feel obliged by your allowing them an early insertion.

I am, Sir,
Your obedient servant,
R. H. Brett, M.R.C.S.

Upper Sussex Place, Kent Road.

Experiment 1.—2½ grains of arsenious acid, of tried purity, were administered to a rabbit of moderate size, at 20 minutes after 9 A.M. No food was given for the first six or seven hours, during which time the animal was quite lively. At the expiration of this period, a small quantity only of food was offered, and greedily swallowed. At half-past 10 P.M. the animal appeared well, but was found dead at 8 o'clock on the following morning. Upon examination, the external jugular veins in particular, and the whole venous system, were gorged with semi-coagulated blood. Internal mouth, pharynx, and œsophagus, as also the larynx and trachea, healthy. Lungs crepitant, and floating on water. The stomach was distended with food, and almost the whole of the internal surface, particularly about the cardiac end, of a vivid red colour, with an abundant secretion of mucus of a somewhat firm consistence. The mucous membrane in several places exhibited a dotted appearance, apparently from extravasation of blood into the submucous cellular tissue. The mucous membrane readily peeled off. Rectum, and other intestines, healthy.

Experiment 2.—Rather less than 2 grains of the poison were administered to a small rabbit, and three or four minutes afterwards 8 or 10 grains of the hydrated oxide of iron. This animal died in less than three hours, remaining throughout in a torpid state, but not apparently suffering from pain. Upon examination after death, the heart and venous system gorged with fluid blood; lungs healthy, as were also the œsophagus and trachea; stomach distended with food. There was a considerable quantity of mucus covering the lining membrane, which last exhibited no signs of inflammation. The rectum and intestines generally free from inflammation. It may be observed, that a small quantity of water was introduced into the stomach of this rabbit after the administration of the acid, and oxide of iron.

Experiment 3.—A portion of arsenite of iron was prepared by precipitation from the persulphate of iron by means of arsenite of potass. The precipitate, after being washed for some time with boiling water, was dried by a gentle heat. 5 grains were administered to a full grown rabbit, at 10 A.M. The animal appeared little or not at all indisposed until 6 P.M. when it became inactive and refused food. It continued in this state for two hours, when it made violent muscular exertions, and was evidently gasping for breath,—while it occasionally uttered a loud tracheal rattle. In a very short time it died. This animal could not be examined till some hours after death, when the pharynx and œsophagus were found healthy; larynx and trachea, as far as the bifurcation of the latter, much inflamed: the lining membrane was covered with a considerable quantity of mucus. Right lung morbidly red, and less crepitant than natural; venous system gorged with coagulated blood; stomach full of food; mucous membrane covered with a layer of mucus of so solid a character as to adhere and peel off in part with the contents of the stomach. This last was much inflamed, especially about the cardiac end, at which part some extravasation of blood had taken place beneath the mucous membrane. Rectum, and lower part of large intestines, healthy.

Experiment IV.—Six grains of arsenite of iron, mixed with about the same quantity of free oxide, were given to a full-grown rabbit; but as this was administered late in the evening, the symptoms and length of time taken to produce death could not be conveniently estimated: the animal was found dead early on the following morning. Upon examination, the venous system was found gorged with coagulated blood; air-passages and lungs healthy, as was also the œsophagus; stomach distended with food, and lined with mucus of the same character as in the last experiment. The cardiac end of the stomach was much inflamed; there were also patches of extravasated blood; intestines quite healthy.

The first experiment was made for the purpose of marking the morbid appearances produced by, and length of time necessary for, a certain dose of the poison to produce its effects.

An objection may, perhaps, be made to the second experiment, and it may be urged that had the antidote been administered in larger quantity, death would not have ensued. It is sufficient at present to observe, in reply, that the quantity of oxide of iron was more than sufficient to neutralize the arsenious acid, had chemical union taken place.

In the third experiment, the poison and antidote were given chemically combined, but still the animal died; as did also that in Experiment IV. where free oxide of iron was mixed with the arsenite of iron.

It now became an object of inquiry, Will arsenious acid and the hydrated oxide of iron combine, when suspended together in water, the temperature being favourable? What was the nature of the precipitate produced by the addition of arsenite of potass to the per-sulphate of iron, both before and after it had been well washed with boiling water, in which last state it was administered to the rabbits in Experiments III. and IV.?

A.—One grain of arsenious acid was dissolved in one ounce of boiling water, and the solution allowed to become cold. No crystals were deposited. Eight or ten grains of oxide of iron were then suspended through the solution, and the whole kept at a temperature of from 95° to 100° for nine hours; the fluid was agitated from time to time. The whole was then thrown upon a filter, and the filtered fluid found to contain an abundance of arsenious acid, as indicated by liquid re-agents.

B.—The same quantity of arsenious acid was boiled with eight grains of the oxide of iron in water, for half an hour. The filtered fluid gave equally abundant indications of the presence of the poison; the residue on the filter was washed with boiling distilled water, so long as the filtered fluid gave any indications of the presence of arsenious acid; the filter and its contents were then dried at a gentle heat: the residue, which was of the colour of oxide of iron, gave slight indications of the presence of arsenic when heated with charcoal.

C.—An excess of arsenite of potass in solution was added to a persulphate of iron; a fine canary-yellow coloured precipitate came down, soluble in the acids and in ammonia.

D.—A solution of arsenious acid was added to a per-sulphate of iron: no precipitate ensued.

E.—A solution of per-sulphate of iron was added in excess to one of arsenite of potass: the yellow precipitate obtained was collected on a filter and washed with cold distilled water; after some time the filtered fluid ceased to give indications of arsenious acid; the precipitate retained its yellow colour.

D.—A portion of the same precipitate was then washed repeatedly with boiling distilled water, and it was only after some hours that the filtered fluid ceased to give indications of arsenious acid; it gave no indications, however, of the presence of iron; the yellow colour was supplied by a brick-red one, similar to that of the oxide of iron; the precipitate was dried by a gentle heat; when heated with charcoal it gave proofs of the existence of arsenic.

From experiment A, it would appear that even excess of per-oxide of iron will not neutralize arsenious acid, even when this last is in solution, and the time allowed very considerable. It is clear, therefore, that no beneficial results can accrue from the administration of this substance as an antidote, in cases of poisoning by arsenious acid; for in such cases the neutralization of the poison ought to be immediate, and the circumstances are also exceedingly unfavourable for the action of the acid on the metallic oxide: even admitting that a small portion of these substances do unite chemically at such a temperature, the excess of uncombined arsenious acid would not fail to cause death.

In experiment B, the circumstances were still more favourable for the entire neutralization of the poison, the temperature being so high; but in that case, the yellow arsenite noticed in experiment E could not be formed, in consequence of its undergoing decomposition at a boiling heat, yielding up its arsenious acid; but still it might have been expected, that as sufficient oxide of iron was present, the whole of the arsenious acid would have combined with it, constituting the brown arsenite noticed in experiment D.

E.—In this experiment the yellow arsenite was formed, and found to retain its colour when washed with cold distilled water; to which fluid it does not yield up its arsenious acid: boiling water, on the contrary, decomposes the salt; depriving it of a very considerable quantity of its arsenious acid, and altering its colour. I am inclined to consider the yellow and the brown as two distinct arsenites, the arsenious acid in the former being in much greater proportion than in the latter. That the arsenious acid in the former is not in a state of mere mechanical mixture with the oxide of iron, is shewn by the colour of the compound; one of the strongest proofs of chemical union.

I have not had time to examine the proportions in which the acid and oxide unite in these two arsenites; but supposing, in the first case, that the salt consists of two atoms of acid to one of base, the combining proportions would be 100 acid to 40 oxide. Still there would have been more than sufficient oxide of iron, both in the experiments on the rabbits as well as in those last detailed, to have combined with the arsenious acid employed; and the same may be said of the second arsenite, in which the proportion of arsenious acid is much smaller; for supposing that there were two atoms of base to one of acid, the proportions would be 50 acid to 80 base: the quantity of oxide of iron, therefore, employed in the experiments alluded to, was more than sufficient to allow of such a combination, and the consequent neutralization of the whole of the arsenious acid present.

From these experiments, I conclude that the hydrated oxide of iron cannot be administered as an antidote for arsenious acid with any chance of success, and that, like other reputed antidotes, it most probably acts by protecting the coats of the stomach from the action of the poison, and not by rendering the poison insoluble. From a few experiments performed on arsenic acid, I am inclined to believe that the same objections may be advanced as in the above instance; but further investigation is required to clear up that point.

REPORT OF

CASES IN WHICH ERGOT OF RYE WAS USED*;

With its Effects.

By Fleetwood Churchill, M.D.

Physician to the Wellesley Female Institution, Lecturer on Midwifery, &c.

The various opinions which have latterly been put forward as to the utility of the ergot of rye—its use in various diseases—the doses in which it should be given—with the good and evil effects produced by it—have induced me to throw together a few of the cases in which I have tried it, and of which I took accurate notes at the time. In many of these, and in some of those related by others, an important oversight has, I think, been committed, in not observing the pulse *immediately* after each dose. In two cases which I shall relate, we may observe that the primary effect of the ergot occurred very shortly after its administration, and was followed rapidly by another and very different state, which has usually been considered as its direct effect. All medicines of great power are liable to produce ill consequences sometimes, in connexion with the good derived from them,—sometimes as their sole effects: thus it is with ergot. We meet with cases where life is apparently preserved by it, without a single unfavourable symptom occurring; in others (as in Cases I. II. and III.) the object for which the remedy was given is attained, but distressing circumstances accompany it; whilst in a third class no good is done, and the evil alone is prominent.

Case I*.—Mary R., in her fourth month of pregnancy, was seized with hæmorrhage after fright. During this first attack, I was afterwards informed, she aborted. For some days I tried the ordinary remedies,—opium, an acid mixture, cold to the vulva, and plugging,—without success. After a short interval the flooding returned, expelled the plug, and reduced the patient to a state of anemia. Nothing peculiar was discovered by examination *per vaginam.* As no time was to be lost, I then gave her ʒj. of the ergot in three doses, with intervals of an hour. The stomach retained the whole. No pain was felt in the belly for some hours, when she said she felt a slight sting. *The hæmorrhage stopped entirely.* The next day she complained of violent pain in the head, and became delirious for some hours. These symptoms were relieved by purgatives, shaving and blistering the head, &c., and she gradually recovered so as to sit up and walk about her room. In about a week, after some greater exertion than usual, she had a recurrence of the flooding. The ergot again relieved her, after opium and cold to the vulva failed; but it was followed by similar excitement, though in a much slighter degree.

Case II.—Mrs. F., two months pregnant, was attacked with hæmorrhage, for which the usual means were employed. The next day (April 22, 1834) I saw her, as the discharge had recurred in an alarming degree; and I ordered ʒss. of ergot in two doses, with an interval of fifteen minutes between each. After sleeping awhile the discharge returned, and another dose (℈j.) was given with perfect success. She aborted, and *no hæmorrhage followed.* On the next day she was in a state of half-stupor, with violent headache, and weak, quick, depressed pulse. These symptoms yielded to appropriate remedies, and she recovered.

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* Read at a meeting of the Association of Physicians, Dublin, Oct. 6, 1834.

* An abstract of my notes on this case was given by my friend and colleague, Dr. Maunsell, in a report of the Wellesley Institution, published in the Dublin Journal for July 1834. They were then introduced merely to shew the occasional bad effects of this remedy.

Case III.—Mrs. ——, in Leeson-Lane, after being safely delivered of a living child, on the expulsion of the placenta was attacked with violent hæmorrhage, for which the pupil in attendance applied cold to the vulva. When I arrived, I found her blanched, with very feeble pulse, and complaining of great faintness. I gave her ʒss. of the ergot, in two doses, with an interval of half an hour, and no stimulants. *The flooding entirely ceased.* On visiting her a few hours afterwards, I found her rather feverish; skin hot; pulse very rapid; and a very slight headache. These symptoms subsided without remedies, and she got well.

Case IV.—Mrs. ——, Stephen-Street, three months pregnant, was seized with flooding, and the fœtus was expelled, but no secundines; and I was called in. Cold had been applied to the vulva without effect, and she was much reduced by the bleeding. On examination *per vaginam*, I could distinctly feel the membranes within the os uteri, but could not extract them without introducing my hand, which I deemed inadvisable. One drachm of ergot was given in three doses, with half an hour's interval between each; and the pulse was carefully noted every few minutes. Five minutes after the first dose it had diminished six beats in frequency, and was weaker. From this point it gradually rose to its former standard; and this was exactly repeated with each dose. No excitement followed, and the patient perfectly recovered.

Case V. was a patient, Mrs. M., aged 45, in lingering labour of her first child. The parts were of proper size, but the uterine contractions decreased in force and number. After a considerable time had elapsed, and other means had been tried, ʒj. of ergot was given in ℈j. doses, at half-hour intervals. The pulse, which beat 96 when the first dose was given, in five minutes fell to 69, and then gradually rose up to its standard at first; and this occurred with each dose. The pains were increased in frequency, but not in force, and the forceps was finally employed. There remained a sort of stupor over her after the ergot was given; but whether caused by that, or by the duration of labour, may be difficult to decide.

Case VI.—Mrs. —— aborted a fortnight before I saw her, and since that time had continued to suffer from a profuse sanguineous discharge, which reduced her considerably. I prescribed gr. v. of the ergot to be taken three times a day; and after taking four or five doses the flooding diminished, and soon ceased altogether. No bad symptom followed.

By way of illustrating the unmitigated ill effects of this remedy, I may refer to a case communicated to Dr. Maunsell by Dr. Johnson, related in the same number of the Dublin Journal, in which a double dose was given by mistake to a person in labour. No uterine contractions were produced, but the patient was attacked with "incomplete coma, livid face, and muttering delirium," which continued thirty hours.

From the cases I have related, may we not conclude, that the primary action of ergot of rye is sedative (Cases IV. and V.), followed quickly by more or less excitement, in some cases by delirium. How long this state would last, and whether it would subside spontaneously, we cannot say positively. In one patient (Case III.), where remedies seemed unnecessary, it did so subside; but in the others it would have been unjustifiable to have neglected the means in our power, and which were speedily successful.

I know not of any cases in which these symptoms proved very obstinate. The inference, therefore, that I would draw from these trials is, that as ill consequences do result from its use, it requires great care in the administration of it; but that its positive value is but little diminished, and its exhibition not interdicted by this circumstance; for we see that in two cases it probably saved the patients' lives, even where it occasioned the appearance of head symptoms. In another case it rendered unnecessary the manual extraction of the secundines at an early period; and in a third it controlled a very obstinate menorrhagia. I fear that at present our knowledge of its effects on different constitutions is too limited to enable us to distinguish beforehand those cases in which ill effects may be anticipated. We ought certainly to abstain from its use in any case where there is cerebral excitement.

It is very desirable, whenever ergot is given, that an accurate estimate of the pulse at the time of administering it should be taken, and that notes of its frequency should be made every five minutes afterwards. I am unable to explain why the same doses should act so powerfully in one case, and not in another; for in the trials I made it was as fresh, and apparently as good, when given to one patient, and when ordered for the others. The mode of exhibition I adopted, was to boil the bruised ergot in a little water for a few minutes, then adding a little milk, to give both the decoction and the ergot. The addition of the milk renders it more palatable, and less likely to provoke vomiting. We should be careful, however, to increase the bulk of the medicine as little as possible, as that alone would irritate the stomach.

It will be observed that I always gave it (with one exception) in scruple doses; and I do not know whether, in cases of such imminent danger, we should be justified in giving smaller doses, as much more time would be required before the full effect would be obtained.

MODIFICATION PRODUCED ON CASTOR OIL,

IN PASSING THROUGH THE BOWELS.

To the Editor of the Medical Gazette.

Sir,

I shall feel obliged by your publishing the following remarks on the curious modification which castor-oil is capable of undergoing in the intestines. The experiments were performed for the purpose of determining a chemical distinction between the fatty masses occasionally found in the alvine discharges (a circumstance rendered highly interesting to the profession generally, since the publication of Dr. Bright's opinions on that subject), and the different forms which castor-oil is known to assume when mixed up with fæcal matter. It is well known that when the oil has been administered, either by the mouth or as an enema, it may be traced in the dejections under several modifications; sometimes resembling caseous flakes, or a soap-like scum, floating on the more fluid part of the dejection; occasionally it has been seen arranged in a form not unlike bunches of grapes, or more nearly of hydatids of a whitish colour: more generally, however, it is found mixed up with the fæces as a kind of emulsion, and in some few instances (of which the following case is an example) it has been discharged under the form of solid tallow-like masses.

A woman, about eight months advanced in pregnancy, was admitted, a a few weeks since, into Martha's Ward, (under Dr. Bright) labouring under constipation, frequent vomiting, and a burning sensation at the scrobiculus cordis. Some medicines were prescribed for her, and an enema of castor-oil was ordered to be injected. This was done; the injection did not return until the following day; it was mixed with feculent matter, and contained also a portion of the castor-oil: besides this, some solid tallow-like masses were found on its surface; these were given to me for examination, by Dr. Bright. The woman has never since passed a similar substance, and she is now convalescent.

Examination of the Fatty Matter.

1. It is a white soft substance, of a fœtid penetrating odour, sinking in water, insoluble in that fluid, although it causes it to form an imperfect lather when rubbed between the fingers; without any appreciable action on either litmus or turmeric paper.

2. Exposed to heat in a bent glass tube, it partly fuses, swells up, gives off water, and at a temperature just below that at which it changes colour, a little ammonia is evolved; and on increasing the heat, the semi-fused mass exhales a powerful odour of boiling "*soap-suds*," or "*lees.*"

3. When boiled in alcohol of ·830, the fatty substance almost entirely disappears, and a solution is obtained,

which appears turbid, in consequence of numerous very minute flakes being in suspension; on cooling, the fatty matter is deposited as a light spongy mass (two or three times larger than the bulk of fat employed); this was redissolved in alcohol, filtered while hot, and, on cooling, numerous fine needles of stearine were deposited.

4. Another portion of the fat was placed in boiling liquid potass: it swelled, become amber-coloured, translucent at the edges, and eventually dissolved. By cooling, a white solid soap was obtained, soluble in water and alcohol, which afforded fine pearly flakes on the addition of an acid.

5. An alcoholic solution of the fatty matter was mixed with nitric acid, and set aside. In a few hours the surface of the fluid became covered with floating laminæ, of a yellowish colour and pearly lustre, bearing, at first sight, no inconsiderable resemblance to nitrate of urea. This crystalline matter, however, readily fused into yellowish oily globules.

6. Another portion of the fatty matter was boiled for some hours in water, acidulated with acetic acid; when cold, the whole was thrown on a filter, and well washed with distilled water. The fat had now assumed a yellowish tint, and lost the property it before possessed of forming a soap-like lather with water; it had also become perfectly fusible, at a temperature of 145°, appearing then under the form of a yellowish oil, of a peculiar rancid odour.

7. On submitting the fat (obtained in experiment 6, by boiling the original matter with an acid) to distillation, an oil was obtained in the receiver, which, when cold, became a striated crystalline mass, possessing an acid reaction and pungent odour; to this substance some recently-prepared protoxide of lead was added, and the mixture exposed to a temperature of 160°: a mass was obtained, soluble in cold alcohol; the alcoholic solution exerting an *alkaline* reaction on litmus paper, previouly reddened by an acid, and affording a copious precipitate of lead on the addition of liquid sulphuretted hydrogen.

From all these experiments, but chiefly from the reactions described in experiment 7 (which are quite peculiar to castor oil), I have scarcely a doubt that the fatty masses under examination were merely the oil which had undergone some change in the intestines; this change, I am inclined to believe, consists in a process of saponification: a portion of the oil, by combining with alkaline matter, as well as a little albumen, forming a solid soap, which is combined with uncharged oil in a state of minute admixture. I feel more certain of this fact, as I have since been able to form an artificial compound, much resembling the fatty masses. Both soda and ammonia, although in comparatively minute quantities, appear to be present in the fatty matter.

The following are the results of a quantitative examination of this matter.

Stearin and olein	39·00
Water, with traces of ammonia	7·80
Albumen	0.50
Soda	1·15
	48·45
Loss......	1·55
	50·

I am, sir,
Your obedient servant,
GOLDING BIRD.

Guy's Hospital, Nov. 8, 1834.

IMPERFORATE ANUS SUCCESSFULLY TREATED.

To the Editor of the Medical Gazette

SIR,

SHOULD you deem the accompanying case of imperforate anus of sufficient interest to occupy a column of your journal, I shall be obliged by its insertion at your convenience.

I am, sir,
Your obedient servant,
ROBERT DYCE, M.D.
Assistant Staff-Surgeon.

Maidstone Barracks,
Nov. 3, 1834.

On the 5th of October last, I delivered a woman of a female child; the first of seven children born alive. The labour was natural. The following day a dose of castor-oil was given to the infant, which, not operating, was repeated at 3 P.M. the same afternoon. At my evening visit I found there had been neither water nor motion passed, which led me to examine the anus. I found its form externally was tolerably perfect,—however, with rather a more ragged appearance than usual; but on introducing a bougie, it was stopped in its progress about an inch and a half from the external aperture. My finger, when beyond the sphincter, conveyed the sensation as of entering a vacant space, into which projected a small tumor. After some consideration, I introduced the canula of a trocar up to what appeared to be the impediment, and pushed the stilette on to its utmost extent; but no meconium followed. A medical friend of mine, who was kind enough to visit the child along with me, tried the same means, as also the introduction of a grooved needle, but with no better success. Our efforts also to hit upon the urethra were equally unsuccessful. It was then determined to wait the result of a greater distention of the gut, as no urgent symptoms had as yet shewn themselves. On Tuesday (second day) the child was reported to have had an uneasy night, to have vomited repeatedly, and latterly to have refused the breast. The abdomen was very tense and swollen, and the labia enlarged and livid. Nothing had passed either from the rectum or bladder. Another attempt was then made: I introduced my finger into the anus; the impediment was felt more distinct and prominent; a pharyngotomos was then passed flatly along the finger as far as the obstruction, and the lancet pushed firmly on. In a few seconds I had the satisfaction of seeing the meconium pass freely by the finger. A very slight hæmorrhage followed. A hot-water injection was thrown up, which brought off a considerable quantity of hardened meconium, with evident relief to the child.

Still no water had been passed; and every attempt, on this as on the former occasions, to find the urethra by a probe, was unsuccessful. A warm-bath was directed, and fomentations to the abdomen, to be repeatedly used. A few hours after, the child was said to have had three blood motions, to have had no vomiting, and there was rather less tension of abdomen. At this time our attempts were renewed to open the natural passage to the urethra and bladder, and we were deliberating what had better be done in case of failure, when happily, on using some force by pressure with the probe, the resistance was overcome, and urine flowed freely. A dose of oil was now given, and the fomentations directed to be continued.

Wednesday (third day).—The abdomen was found still tense, though less so, and with some œdema of the lower part. The labia were less swelled and livid. The child had been easy, sucked well, and had three or four motions, less bloody and more feculent, but no water. A probe was again introduced, and easily entered the urethra. At this time a teacupful of high-coloured urine came off. For eight days from this period, the occasional use of castor-oil was all that was required; conceiving that free action of the bowels would keep the orifice in the rectum open, and obviate the necessity of using bougies. In this I was mistaken. The wound was evidently at this time contracting; the stools were thin, and in small quantity; a good sized bougie was therefore introduced twice a day for ten days, when, both functions being performed regularly, I desisted. The child has now, I consider, been well for the last week.

A similar case to this has been mentioned to me, as occurring in the practice of a civil practitioner within the last few days, where the trocar was also unsuccessfully used.

If a single instance in my own hands, and the report of a second case in those of another, would justify my hazarding an opinion, I would say, that, of the two instruments, the trocar and pharyngotomos, the latter is decidedly the preferable. From the elasticity and little resistance offered by the gut, and the trocar not having so keen an edge, it will be more likely, instead of entering, to push the gut before it, as must have happened to myself; whereas the pharyngotomos will penetrate freely, like a lancet, and has, besides, the advantage of enabling the operator to enlarge the wound by a crucial incision, by simply turning the flat surface of the instrument from off the finger, and introducing it at right angles.

ON THE SPINAL NERVES OF THE TURTLE.

VALUE OF COMPARATIVE ANATOMY.

To the Editor of the Medical Gazette.

SIR,

IN the turtle, the anterior bundles of the cervical nerves are much larger than the posterior. Throughout the shell, nearly as far as the sacrum, the anterior bundles are only just discernible with a magnifying glass; the posterior appear, therefore, to form the principal part of each nerve. The anterior bundles of the sacral nerves, or those supplying the lower extremities, rectum, &c. are somewhat larger than the posterior. It is hardly necessary to remark, that in the neck and anterior extremities there are very large muscles, but very little integument. The principal portion of the dorsal nerves enters into the structure of the large shell, and these, therefore, require only a few filaments from the anterior surface of the spinal cord. The nerves given to the lower extremities have to supply a larger proportion of integument than muscle, as compared with those of the neck and the anterior extremities; and the posterior bundles of these are therefore larger in that requisite degree.

The arrangement of the different parts of this creature appears to me to support the doctrine setting forth the anterior roots of the spinal nerves as exciting motion, and the posterior as conveying sensation. Further dissections may shed a clearer light; this, however, may be sufficient for presuming that comparative anatomy may explain many dubious parts in physiology, as well as, or even better than, experiments on living animals. It may, therefore, be worth while to consider whether the neglect of this most copious source of useful knowledge reflects credit on the profession of this country, and whether groping in the pursuit of science by the random infliction of cruel tortures, is not one of the most humiliating expedients to which men of cultivated minds can have recourse.

I am, sir,
Your obedient servant,
JOSEPH SWAN.

6, Tavistock-Square,
Nov. 1, 1834.

CASE OF

MAL- OR TRANS-POSITION OF THE HEART;

WITH COMPLETE OBLITERATION OF THE GALL-BLADDER.

To the Editor of the Medical Gazette.

SIR,

EVER anxious to cast my mite into the treasury of useful knowledge, I send you the following particulars of a post-mortem examination, which, whether considered combined, or separately, presents an interest of no ordinary character, —facts of no common observation.

The distinguishing peculiarities of this examination, if viewed apart from each other, are unusual; but looking at them conjoined in the same individual, so far as my observations, and reading, and memory, can carry me, they almost bring me to the conclusion that they are without parallel; but in this respect I wish to speak with modesty, giving place to the more extensive opportunities and range of observation, which locality and circumstances afford to many of my seniors in the profession. In submitting them to publicity, sir, I have chosen the channel of your valuable miscellany, and should you consider them worthy of insertion therein, your early compliance will much oblige,

Your obedient servant,
HILDYARD M. LEPPINGTON,
M.R.C.S.

Great Grimsby,
Nov. 7.

Post-mortem examination of J. M. æt. 48, of short stature, broad set, very corpulent, and weighing about 22 stone.

On opening the chest, the first object which presented itself to my notice was the heart, lying directly transverse across the front, just beneath the sternum, having its base to the left and its apex to the right side. The organ was large; though not so when viewed in comparison with the other organs of the body, but taken separately it was. Its structure was soft, tearable, and what some anatomists might call ramollissement; not remarkable for fat, neither had the vessels nor valves undergone any particular lesion. The left ventricle contained some very dark blood, and the right was full; its character and consistence nearly resembling coal-tar, of a thick, dark, grumous nature. His countenance, a few days prior to his death, indicated some obstruction or imperfect arterialization of the blood; for, on the least exertion, his face and ears were as if they had been dusted with soot, and so continued from half an hour to an hour afterwards. The pericardium was much distended, and contained a considerable quantity of serum. The lungs were somewhat displaced, and the left much larger than the right; they wore a dark mottled aspect, and the cellular structure throughout was expanded with serous effusion, the chest itself containing at least a pint of fluid.

Abdomen.—On examining the abdomen, the stomach, bowels, kidneys, and liver, all presented a flaccid, inactive, and unhealthy condition; their size was more than ordinary, and effusion had taken place throughout the cellular substance more or less connected with these organs.

Liver.—This organ attracted my attention: its appearance was the same as of the heart—large, pale, and soft; but to my astonishment, on looking to the situation of the gall-bladder, I found it completely obliterated, and nothing remained, save a small, soft, dark concretion, tinged with yellow, about the size of a horse-bean, and crumbling beneath the pressure of the finger and thumb—in fact, it scarcely amounted to a concretion—and a condensed corrugated imperforate mass: of course I could not trace any opening into the duct. The abdominal cavity contained, I think, at least two gallons of serum.

One great peculiarity in this case is, that during my professional attendance on him, which was the last year and a half of his life, he never complained of pain anywhere, except occasionally under the left breast, but never in the region of the liver. His bowels were easily acted upon; and if he had one action of the system which was natural, both for regularity and appearance, it was his daily alvine evacuations; sometimes they were rather pale. His tongue was certainly indicative of hepatic derangement, and he frequently underwent a mercurial course, occasionally extending to ptyalism.

It may be asked, was there any evident transposition of the heart during life? I frequently made an examination of the chest; but from the feeble action of the heart, and great density of fat covering the front and sides of the ribs, auscultation was rendered very ambiguous: nevertheless, I well remember more than once, when the pulsation was most distinct, to have observed and mentioned the existence of the fact.

When I saw him at the commencement of his last illness, Sept. 13, he had been bled by the advice of a physician the day previous, and had taken a small dose of elaterium, since which he had become much worse. I found him in a state of complete coma, speechless, with atrophy of the tongue, frequent paroxysms of dyspnœa, great torpor and inactivity throughout the whole frame, the pulsation at the wrist only 40, feeble and indistinct, no secretion from the kidneys, and unable to lie down. He took the pil. hydrarg. and pulv. scillæ, with a diuretic mixture, occasionally stimulants, and a blister applied to the back of the neck, which was kept open about a week or ten days, during which time his senses were gradually restored, the kidneys secreted, slight ptyalism was produced, but the pulse never exceeded 40; and what is still more surprising, the ensuing week it never exceeded 32 per minute; and during this time he could never assume the horizontal posture. Following up this line of treatment he somewhat improved; his pulse, though feeble, increased in frequency; he could lie down for about two or three hours; his appetite was good, and he was enabled to walk about the house and premises.

During the last fortnight he became anasarcous; and on the Friday before his death, he had very sudden and extensive effusion into the cellular substance of the scrotum and penis. I introduced a small trochar, and drew off, guttatim, three quarts of serum. This is not conjectural, because I had it secured as it came, and measured it. Into the penis I introduced the needles, from which operations he became much relieved, but died on the Sunday evening following, suddenly; this I always expected. Had I been disposed to tap the abdomen, it would not, taking the circumstances of the case into consideration, have been justifiable; for my patient was so fat in some parts of the abdomen, as to admit the scalpel three or four inches; and this quantity of adipose substance rendered fluctuation very indistinct, if at all perceptible; moreover, the anticipated result did not inspire me with sufficient confidence.

Reviewing the history of this case, it furnishes us with the fact, that there was a predisposition to serous effusion, more or less, throughout the system, arising partly from his free habits during the early period of his life, his increasing obesity, and, from the nature of the disease, I suspected some hepatic derangement, although there were no existing local symptoms to guide me in a correct diagnosis, either as it regarded the true character of that derangement, or of its extent. When I visited him on the evening of September 13, it was evident that effusion had taken place within the thorax, the pericardium, and on the brain; and I considered that it had been somewhat accelerated by the previous depletion. Pursuing the line of treatment above laid down, the local symptoms show that the absorbents had been excited, and that some fluid had been removed: his senses returned; his tongue recovered its motion; he was enabled to lie down for two or three hours together; and in this state he continued till within about ten days of his decease, when the exhalants resumed their activity, but with increased power. He became anasarcous, and died as above stated.

At the suggestion of Mr. Hewson, of Lincoln, who saw the case with me a few days before death, in addition to the previous treatment, we applied blisters to the legs, from which an amazing quantity of fluid was discharged, and ʒij. doses of potas. supert. with a few grains of pulv. jalapæ, were given twice or thrice a-day. If I remember right, this mode of treatment is recommended by Drs. Blackwall and Mason Good.

ON BRONCHOCELE IN YOUNG FEMALES;

WITH REMARKS ON THE USE OF IODINE.

To the Editor of the Medical Gazette.

SIR,

To publish his observations in the profession, is the duty of every one, young or old: to resort freely and unabashed to the older and more experienced practitioner, for practical information, is the duty of the former; and as freely and willingly to bestow that information, is the duty, too, of the latter—as by this means he is fulfilling a part of the useful objects of his humane profession. As a junior in the profession, then, I beg leave, through the medium of your valuable periodical, to insert a few lines on bronchocele in young females.

I am induced to do this from reading the following passage in the excellent Dictionary of Practical Medicine, by Dr. Copland, which is now in the course of publication:—"In a considerable number of cases which have come before me in females, I have never met with any before the period of commencing puberty,—not even in the Infirmary for Children,—although the menses have often been delayed for a year or two, or even longer, when the tumor has appeared at this epoch; and I have seldom observed an instance in this sex unconnected with some kind of irregularity of the menstrual discharge, or disorder of the uterine functions."—Within the last month, I have seen five cases of its occurrence in young females—at least two of the five are nearly grown up; but I have particularly ascertained from their friends that the enlargements have existed since they were six or seven years old; three of the females are at the present quite young; one of them, nine years old, has had the disease three years; the other is six years old, and has had a very large neck some length of time; and the youngest (sister to the last), is not five years old: the neck is not very large, but there is every probability that it will eventually attain as large a size as her sister's. Cases of the disease in older persons are very common indeed; but I do not find that they are at all attended with, or rather, I should say, the consequence, of any irregularity of the uterine functions; and having seen several cases of the disease, I am inclined to conclude, that there is not any very great connexion between this disease and derangement of those functions, although, at first sight, it seems very plausible. Perhaps it is from local causes that cases of bronchocele in young children have not occurred in the metropolitan practice of Dr. Copland; for certain it is, that in some districts this disease is much more common than in others. From my own observation, it is not common in the parts which I have visited of the counties of Warwick, Stafford, Worcester, and Buckingham. In Hertfordshire, on the contrary, it is very plentiful; and from its being commonly called the "Derbyshire neck," I suppose it is frequent, too, in that county. In some parts of Switzerland and Italy it is very common and endemical; in other parts of the same countries the people are comparatively free from it: it is there generally attendant on that terrible disease *cretinism*, both which have been so fully and ably described by Dr. James Johnson in his "Change of Air." I have noticed, that most of the persons I have seen with the disease are makers of straw-plait. I merely mention this circumstance: it would be difficult even for a theorist to frame a connexion here between the employment and the disease; still, however, a future observer may, perhaps, by some means, explain the fact.

A few days ago, Dr. Hooper told me he had very rarely seen the disease in very young females; and according to the best of his recollection, the youngest subject he had seen with the disease was eight or ten years old.

In the *treatment* of bronchocele, there can be little doubt of the efficacy of iodine: I have seen it used in several cases with the greatest benefit. The little girl who is six years old has her neck very much reduced in size from the iodine treatment. Care has been taken that the medicine should not be administered in such quantities as to produce any of the symptoms of an overdose, such as heat and sensation of weight in the epigastrium, and the other effects of too large a dose, which are so minutely described, in his work on Materia Medica and Therapeutics, by Dr. A. T. Thomson. Great caution is required, too, in giving the first few doses of the medicine; for the effects of the same dose, I have often observed, are very different in different individuals, and even in the same individual at different times. That this is the fact, is confirmed by the following passage in the work referred to:—"In irritable habits, even when the dose is not so large as to deserve the epithet overdose, it causes a febrile excitement, often accompanied with nausea, vertigo, and headache, and occasionally symptoms which resemble those of shaking palsy. When these occur, the use of iodine as a remedy should be suspended." And by the following case of Sir Astley Cooper's, in his Surgical Lectures:—"I witnessed, very lately, an instance of an overdose of this substance producing the most violent convulsive symptoms. The quantity of iodine taken was less than that which is often given, but it was an over-dose to this patient. There were forty drops of the tincture in a mixture of six ounces, and he was desired to take three table-spoonfuls three times a-day. He had only taken three-fourths of the mixture when he was seized with the most violent convulsions; his hands, legs, and feet, were kept in constant involuntary motion, and he declared that during the whole night he resembled a person in the act of fighting and wrestling." For this reason, the doses should be very small at first, and gradually increased. There are several tinctures of iodine used, and it is better, after making a trial of them, to adhere to one formula. I have used the tincture made by dissolving two scruples of the iodine in one ounce of alcohol, and have generally begun by giving six drops three times a-day, gradually increasing the dose to fifteen or twenty, according to the age of the person and other circumstances. I have used externally, either the ointment of the hydriodate of potash or of the iodide of mercury: the latter is very easily made, by rubbing equal parts of mercury and iodine together in a glass mortar, and adding half a drachm of the iodide to an ounce of lard.

Its occasional action upon healthy glands is a very important circumstance, and one which should be strictly attended to. Dr. Thomson, in vol. i. p. 344, says, "It is supposed that the nervous plexuses and the great sympathetic nerve are particularly acted upon by iodine; but its chief influence, as an excitant, is undoubtedly upon the absorbents, which it appears to urge to unusual activity, carrying off by their means not only diseased but healthy glands. During the continued use of iodine and its preparations, all the organic tissues (particularly the mammæ in women, and the testicles in males) waste; but no gland in the body is exempt from the action of iodine." Again, in vol. ii. p. 393, in the section on Diuretics, he writes thus:—"It is the only substance which seems to stimulate decidedly the absorbents; and their influence, when thus urged, extends even to the healthy glands: both the mammæ and the testicles, free from disease, have, in several instances, nearly disappeared during its administration." It is reasonable to suppose that a medicine which will, through its action upon the absorbent system, reduce an enlargement of the thyroid, or of any other gland, and prevent the future morbid growth of that gland, or act upon healthy structures and prevent their regrowth; I say, it is reasonable to suppose that this medicine, in the same way, may prevent the full development of these parts in persons in whom they have not yet arrived at their full size: therefore, I would ask, is there any danger in giving the medicine for a great length of time to such young children?—because it is evident that the disease had better be left to take its course unmolested than that these healthy glands, when developed, should be absorbed, or any risk arise, from administering the medicine to young children, of interrupting the progress of their natural growth.

The two points, then, to which I would solicit the attention of others, are, 1st, the frequency of the occurrence of bronchocele in young females, and its connexion with uterine disorder; and, 2dly, the propriety or not of giving iodine to young children.

If any persons who may have observed and treated many cases of this disease, will take an early opportunity of communicating the results of their observation and practice to the profession, they will render a service to it generally, and to me in particular.

I am, sir,
Your obedient servant,
T. Herbert Barker.

Redbourn, Herts. Nov. 10, 1834.

EXTRACTS
FROM A
JOURNAL OF NATURAL HISTORY;

Kept during a Voyage from England to New South Wales, and on the return to England, by way of Batavia, Pedir Coast, Singapore, &c.

By George Bennett, Esq.

(For the Medical Gazette.)

On the 10th of March, in latitude 14 min. south, and longitude 20 deg. 7 min. west, at 3 P.M., I captured by the towing net a very fine specimen of *Janthina*, to the shell of which several very small *Anatifa* were attached by a very small peduncle. On placing the specimen in a glass of sea water, the animal floated by the vesicular appendage attached to the foot, and which was protruded in a similar manner when the animal was in the net, and being also never seen retracted when other portions of the animal were so, I do not consider the animal has the power of doing so: when this appendage was touched with the finger, the animal (when alive) retracted itself, but the vesicles remained unmoved even in the slightest degree. Cuvier seems to consider that the animal has not the power of emptying or filling it with water, but observes regarding the capability of the animal withdrawing itself into its shell, " il peut seulement le comprimer en le faisant rentrer dans sa coquille, ou l'abandonner à son elasticité naturelle en l'en laissant sortir."—(*Sur les Mollusques*, 4to. Paris, 1817.) It exactly resembles in appearance *froth*, and merits the appellation given to it by Fabius Columna, of *Spuma cartilaginea*; for, as Cuvier observes, although like foam, " leur parois sont quelquefois comme de cartilage, assez durcs même vers la racine et la partie posterieure; plus molles, plus membraneuses, en avant et à l'extrémité. Dans d'autres individus, je les ai trouvées plus étendues et entièrement membraneuses."—*(Loc. cit.)*

It is mentioned by Cuvier that some individuals have been found in which this vesicular appendage has been found wanting, and considers that the only difficulty they experience is in keeping themselves upon the surface of the water; but as I have captured specimens without this appendage by the towing net, the similar method by which those with it have also been taken, I must only infer that they can float on the surface of the water equally with or without it, although it must be naturally supposed that the animal and its shell cannot be retained so long on the surface without as with it.

The shell of this animal is of a delicate and pretty form, and of a greater or less deep violet tint; some were white in a great proportion over the upper surface of the shell, and these shells are only found floating on the water at great distances from the land: it has occasionally also, I believe, been captured about sea-weed, but this is of comparatively rare occurrence.

The animal is among the *Tracelipodous* animals.

The animal, with its beautiful lilac-coloured shell, and transparent bubbles, afforded a very interesting object when viewed floating in a glass of water: the little barnacles about its shell also displayed vitality, by thrusting out and withdrawing its minute tentaculæ in a beautiful stellated form, somewhat resembling the zoophytes which produce the elegant corals.

When a fly perched and ran about the vesicular appendage, which projected above the surface of the water, it did not produce any effect, so as to cause that appendage (allowing the animal to have the power) to be retracted within the shell.

On the animal being touched in ever so slight a degree, it produced the effect of causing it immediately to withdraw itself into the shell, and even at first on any person moving near the glass of water in which it floated; but then the frothy appendage always remained stationary. It was nearly two hours after it had been placed in the glass of water before the animal became so bold as to protrude the whole of the upper portion.

In the evening I found the specimen of *Janthina* dead.

The view of this pretty shell and animal, together with the parasites attached to it, excited much interest by their beautiful appearance, by far exceeding either the engraved representations, or specimens preserved in alcohol.

March 16th.—On looking this evening at the specimen of *Janthina* in spirits, I found the shell and soft parts, which before had been suspended in the alcohol by the vesicular appendage, sunk to the bottom of the bottle, and the vesicular appendage detached from the animal floating still upon the surface: it was not separated by any injury, as the bottle had not been moved since the last time I saw it suspended, as when first placed into the spirits.

In a note, at page 108, vol. ii. of Lyell's Principles of Geology, it is mentioned that Mr. Broderip possesses specimens of *Janthina fragilis*, bearing more than one species of barnacle (*Pentelasmis*), presented to him by Capt. King and Lieut. Graves. One of these specimens, taken alive by Capt. King far at sea, and a little north of the equator, is so loaded with these cirrhipeds, and with numerous ova, that all the upper part of the shell is invisible.

At 6, P.M. a number of the luminous rose-coloured *Medusæ* were taken.

At 8, P.M. several *Phyllosoma* of the species *commune* et *clavicorne;* and several triangulated crustaceous animals in some degree resembling young specimens of *Hylæa dentata*, and a small bronze-coloured fish.

There are occasional sparklings and flashes of light after dark occasioned by *Pyrosoma*, *Medusæ*, *Salpæ*, and other luminous molluscous animals; but on placing the towing net over the stern of the ship where the luminous appearance was strongest, it appeared to pass through the luminous masses, but not a specimen was caught, which I can only attribute to their swimming deeper.

At 9, P.M. a very large quantity of *Phyllosoma*, (species *commune* et *clavicorne*,) but all of small size, were in the net: there were at least several hundreds, and a repetition of throwing the net overboard always brought up large quantities in a short time, so that large shoals must have been near the ship at that particular time. This I have often remarked as occurring with the *Pyrosoma*, *Smerdis*, *Salpæ*, &c.

March 12th.—Fine and calm weather. Lat. 00° 52′ N. and long. 21° 15′ W. A large bird of a heavy flight, like a gannet, was observed at some distance from the ship, and was not sufficiently near to enable me to ascertain what it might be.

Two of the "Stormy Petrel" (*Procellaria pelagica*,) "Mother Carey's chicken" of seamen, were also flying about this morning. I observe in a newspaper that "in December, 1833, by reason of the late heavy gales at sea, the stormy petrel has been seen on the river Thames above London, and shot." —Although we now saw these little harbingers of wind and storms in the latitude of calms, &c. yet, when in higher latitudes, with strong south-west winds, not one was seen, or any indeed even to the Channel, except these just mentioned.

14th.—Fine weather, with light airs from the northward, and calms. Lat. 1° 27′ N. and long. 22° 34′ W. Several stormy petrels were flying about the ship; and in the evening I caught a small luminous *Salpa*, which gave out, when touched, a beautiful bright light, not diffusing itself over the animal as I have usually observed, but in rapid streaks like lightning, having a fine effect: it was so brilliant that the phosphoric light could be distinctly seen even by lamp-light, and the more the animal was disturbed, there was an increased vividness of light, but invariably in the streaked form just mentioned.

16th.—Lat. 1 deg. 38 min. north, long. 23 deg. 30 min. west. A white shark was seen about the ship early this morning, with the usual accompaniments of pilot and sucking fish.

At 6, P.M. I caught a specimen of the molluscous animal allied to *Leptocephalus*.

At 8, P.M. I took several small luminous transparent *Madusæ* and *Salpæ; Alima hyalina*, *Smerdis armata*, *Phyllosoma commune*.

There were also three specimens of *Cleophora:* these shells are so easily broken, that the greatest care is required to take them out perfect from the net.

Both at 8 and 9, P.M. large quantities of small specimens of *Phyllosoma* were captured in the net.

17th.—Lat. 2 deg. 00 min. north, long. 24 deg. 22 min. west. At 4, P.M. I caught another of the mollusca allied to the *Leptocephalus*, and the first I ever yet procured during daylight: this specimen measured 6⅜ inch. in length, and half an inch in the greatest breadth: there was a continuous black line (very narrow) both at the upper and lower part of the animal, and another similar, extending the whole length of the centre. The animal was alive when caught, but died almost immediately after. On its death, the black lines were very indistinctly seen.

At 8, P.M. I caught some luminous *Salpæ* and *Medusæ*. There was also a specimen of *Cleophora;* and two specimens of minute spiral shells of a reddish brown colour. Some of the *Hyalæ tridentata* were also taken.

18th.—Lat. 2 deg. 20 min. north, long. 25 deg. 26 min. west. At 11, A.M. I found in the net a fish measuring five inches in length; a dark blue line on the upper part of the back, remainder of the body silvery. There was also another fish, 1½ inches in length, with purple back, and silvery sides and abdomen; two spines at the posterior and two at the anterior part of the branchial apertures: the tail was spotted with black.

There was also taken a very minute specimen of *Janthina* and several *Porpita*.

22d.—Lat. 7 deg. 12 min. north, long. 32 deg. 33 min. west. At 7, P.M. until 10, P.M. large quantities of the *Smerdis communis* et *armata* were caught, evidently being large shoals of them about the ship. A small flying fish was also caught.

31st.—With the Sargasso weed a large crab was caught.

At 8, P.M. I captured in the net several small luminous transparent *Medusæ* and *Salpæ*, and also several small bronze-coloured fish, lat. 22 deg. 16 min. north, long. 41 deg. 6 min. west.

April 1st.—At 8, P.M. among some Sargasso weed in the net, I found two specimens of *Sepia*, of a purplish colour; two specimens of the "bronze-coloured fish," one 3½ inches long, and ⅞ of an inch at the greatest breadth.

At 9, P.M. with some weed, was a small specimen of *Leptocephalus*.

2d.—Ther. 70 deg. to 74 deg. Lat. 24 deg. 33 min. north, long. 43 deg. 22 min. west. I found a number of crabs and shrimps among the weed.

A small dolphin was caught this morning: in its stomach was a half-digested flying fish. Several long slender *Filaria* were also found there.

Among the Sargasso weed I found circular clusters of yellow ova enveloped in a transparent gelatinous substance, and which may probably be those of *Scyllæ pelagica*.

3d.—Ther. 71 deg. to 74 deg. Lat. 26 deg. 9 min. north, long. 43 deg. 00 min. west. At 8, P.M. I found some Sargasso weed in my net; several of the small fish similar to those before caught; and one also short, thick, and of peculiar form.

4th.—Ther. 69 deg. to 72 deg. Lat. 28 deg. 6 min. north, long. 42 deg. 46 min. west. On the Sargasso weed, besides numerous small crabs (some of which had black ova in the usual situation,) were also green, yellow, and red-coloured shrimps. Many of the leaves and berries of the Sargasso weed were encrusted by some crustacea of a minute kind.

5th.—Ther. 68 deg. to 72 deg. Lat. 29 deg. 17 min. north, long. 42 deg. 57 min. west. At noon, among a mass of Sargasso weed, in my towing net, I found a large specimen of a crab prettily mottled, with reddish brown and white.

There was also a fish of a whitish colour, with irregular black spots: it was of large size.

At 1, P.M. I captured in the net, with as usual abundance of Sargasso weed, a fine specimen of *Syngnathus*, or pipe-fish. It was of an olive colour above, and a beautiful golden beneath, with white lateral marks nearly the whole length of the body. It survived for some time out of the water, after it was caught.

At 3, P.M. I caught another large crab similar to the one mentioned above, but not quite so large, among the Sargasso weed.

Soon after I found in the net a fine and large specimen of *Physalis pelagica*, adorned with the usual beautiful tints, but not so vivid as I have usually seen them. The tentaculæ were for the most part broken, that is, the long filiform ones, the short and thick kind remaining perfect: the longest of the former were nearly four feet. The length of the bladder portion of the animal was $5\frac{7}{8}$ of an inch; and the greatest diameter 3 inches, and the greatest height $3\frac{1}{2}$ inches.

The application of cold water seems to renew the irritative effects of the acrid fluid emitted from the tentaculæ of this mollusca, even when the first pain has in some degree subsided.

At 5, P.M. besides a quantity of shrimps among the weed, there was also a small triangular *Salpa*.

At 6, P.M. I caught among the weed a very small fish, not unlike an embryo specimen of the "flying gurnard," being of a red colour, with black marks.

6th.—Lat. 30 deg. 21 min. north, long. 44 deg. 7 min. west. About noon, among the Sargasso weed, with as usual numbers of shrimps and crabs, I caught a *Syngnathus*, or pipe-fish, similar to the one caught yesterday, but smaller in size.

At 1, P.M. I caught, with the weed, another of the embryo fish resembling the *Trigla volans*, or flying gurnard, and similarly marked to the preceding, and which expanded its pectoral and ventral fins in a very pretty manner when placed in spirits.

A small *Sepia* of a fine purple colour, with dark red spots, was also caught; and a large crab, mottled with reddish brown and white, similar to those previously captured.

At 5, P.M. the net contained among the weed a purple *Sepia*, similar to those caught before, together with numerous crabs and shrimps; and a small fish, with purple back, and silvery sides and abdomen.

7th.—Ther. 66 deg. to 68 deg. Lat. 30 deg. 36 min. N. long. 43 deg. 22 min. west. At 2, P.M. I found among the weed in the net, besides several species of crabs and shrimps, and one of the small purple *Sepiæ*, with dark red spots, a large crab, similar to those previously caught, but with a mass of ova in the usual situation: attached to the upper part of the shell was an *Anatifa*, of a blackish colour, partly edged with white. There was also a minute fish, of a beautiful purplish colour.

At 3. P.M. I found among the weed another crab, mottled with reddish brown and white, but of much larger size than the preceding specimens caught: it had also a parasite attached to the dorsal shell, similar to the one before taken, but smaller.

Besides the great numbers of small crabs and shrimps seen about the masses of the Sargasso weed, several of a very pretty striated species of *Anatifa* were seen attached to it.

A CASE OF CONGENITAL

DEFICIENCY OF BOTH THE UPPER AND LOWER EXTREMITIES[*].

By J. F. E. Hardy, M.D.
Of Ashville, North Carolina.

The subject of this deformity is a young woman, aged about 20 years. She was born without either upper or lower extremities, the situation of which is merely occupied by small rounded projections. The stumps of the shoulders are remarkably small and short; those of the thigh are much larger, but are not more than two inches in length. I think her mother has had twelve children, but she is much larger than either of her brothers or sisters. She is, indeed, of a full and plump habit, and possesses a peculiarly lively disposition.

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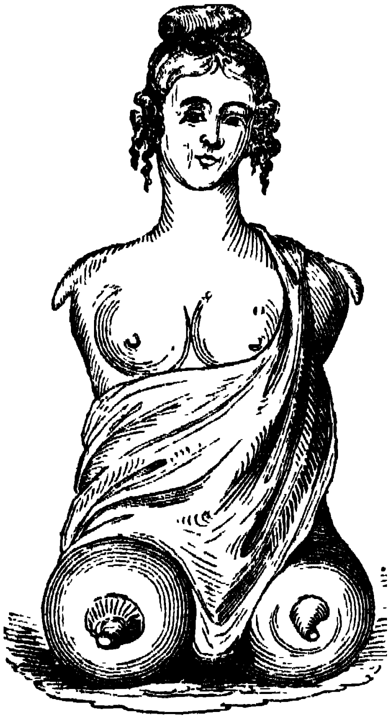
[*] Communicated in a letter to the Editor of the American Journal of the Medical Sciences.

Her power of locomotion is remarkable. She can transport herself over the floor with considerable ease, which she does by submitting her body to a kind of rotatory motion alternately from right to left, and the contrary. By confining the handle of a broom between her chin and shoulder, she can sweep the floor with considerable dexterity. She can also sit erect, lean back, or rock herself in a chair, as well as another person; and when any thing is given her, she makes a sign for it to be placed upon her shoulder. If it be any solid article of food, she eats it from that situation.

Her hips and nates are remarkably full and large, and are almost square. Her breasts are also voluminous, and remarkably plump, presenting all the characters of the mammæ of a stout young female of her age. Her catamenial discharge is regular, and of the natural quantity.

The annexed woodcut will serve to convey a more accurate impression of her general appearance, than could be communicated by any description.



This defective evolution of the extremities has been observed under various degrees. Saxtorph[*] has reported a case in which even the os innominatum was absent; and one has been described by Martin[*], in which the outer third of the clavicle was wanting.

More frequently, the pelvis and shoulders are properly formed, but the rudiments of the extremities merely represent small excrescences or projections, covered with a smooth skin, and with or without nuclei of bone within. Cases of this kind have been reported by Buchner, Duverney[†], Isenflamm[‡], Dupuytren[§], and others.

Still more frequently there is an absence of the arms, forearms, thighs, and legs; but the fingers and toes exist in a rudimentary condition, and are implanted directly upon the trunk of the body; or the hands and feet are still more perfect, but have the same kind of connexion. Examples of various modifications of these conditions have been communicated by Caldani[||], Dufraigne[¶], Dumeril[**], Dumas[††], Meckel[‡‡], Flachsland[§§], Bouchard, and others.

In all cases of the kind, the defect is owing to an arrest of development taking place before the different parts of the fœtus are evolved; and it will vary in degree, according to the advances made by the process of development, at the period at which the interruption takes place.

ANALYSES AND NOTICES OF BOOKS.

> ' L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

The Study of Medicine. By JOHN MASON GOOD, M.D., F.R.S., &c. &c. *improved from the Author's Manuscripts, and by reference to the latest advances in Physiology, Pathology, and Practice.* Fourth Edition, by SAMUEL COOPER, Professor of Surgery in the University of London, &c. &c.

MR. COOPER informs us in his preface, that "much time and labour" have been expended on the present edition of the work before us; and while we give the learned editor full credit for his assertion, we may safely add, that they have not been expended in vain. Every page bears evidence of the care with which the revision has been conducted, and the mass of additional matter which has been either dove-tailed into the text [with brackets of acknowledgment], or appended in the shape of notes, is really prodigious. Another great improvement is, that the number of volumes is reduced from five to four—a change which appears to have been accomplished, notwithstanding the additional matter, by increasing the size of the page, and the employment of a type which is exceedingly distinct, and yet marvellously absorbing.

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[*] Gesamm. Schriften von Scheel, Kopenh. 1803.

[*] Journal de Med. tome 23, p. 458.

[†] Comm. Petrop. I. vi. p. 149.

[‡] Isenf. and Rosenm. Beitrag f. d. Zergl. Bde. I p. 268.

[§] Bullet. des Sc. t. iii p. 126.

[||] Memorie di Padova, 1804, p. 103.

[¶] Journ. de Med. 1782, Dec. p. 517.

[**] Bullet. de la Soc. Philomat. t. iii. p 122.

[††] Principes de Physiol. t. iii. p. 163.

[‡‡] Handbuch der Pathologischen Anat. Bde. I. p. 748.

[§§] Observat. Anat. Path. 1800, p. 44.

The work is altogether completely modernized, containing all the improvements and novelties in medicine down to the latest date. As an illustration, we observe an account of the *Acarus scabiei*, quoted from the number of this journal published the 4th of last month; and here we must also express our approbation of the minute, and apparently very faithful, manner in which references are made to authorities. The Cyclopædia of Practical Medicine, the Edinburgh Medical Journal, and the *London Medical Gazette*, are incessantly quoted on points of interest. The "Study of Medicine" is thus brought up to the highest standard of the present day, and, as a work of reference at once systematic and comprehensive, has no rival in medical literature.

We shall probably insert from time to time some of the more interesting notes: at present we subjoin the following as a specimen. It contains the particulars of a very curious case, in which numberless portions of tape-worm have been voided from the bladder—perhaps in consequence of a fistulous communication between this viscus and the intestinal tube?

Case in which portions of Tænia have been, and continue to be, voided from the Bladder.

"The Editor, through the kindness of his friend, Dr. Docker, late of Canterbury, has been furnished with the particulars of a young woman, upwards of twenty years of age, who has been under the care of Mr. Law, of Penrith, in Cumberland, since October 1830, and has discharged several thousand portions of tænia from the meatus urinarius. In a letter, dated Penrith, Aug. 29, 1833, Mr. Law states, that "she first felt a sensation like that of a rupture of the bladder, when in the act of stooping to cut a corn, in August, 1829. From that time she had discharges of bloody urine occasionally, with the sensation of something moving in the bladder, more particularly so after each evacuation, and had concluded that this was a worm. However, no mention was made of this to any one, although her health was impaired, until I was called to attend her for an attack of laryngitis, in October, 1830. Blisters being used, brought on retention of urine, with cystitis, which rendered the use of the catheter necessary. After this had been conquered, she mentioned her feelings and apprehensions to me, which for some time I treated as imaginary, till at length, from the greatly disturbed state of the mucous membrane of the bladder, evidenced by deposition, in large quantities, of a white sediment in the urine, I was led to try the exhibition of spirit. terebinth., both by the mouth and injection. Great irritation ensued, but a small portion (about eight joints) of tænia was discharged, per urethram, alive. This led me to the determination to try the effect of opiate solutions, frequently injected into the bladder, which, by keeping the worm constantly under its influence, might destroy it. This, persevered in for three days, answered the purpose; all motion of the worm ceased; and, by an expansion of the urethra, its discharge was effected in large quantities, but in so decayed and broken a state that its parts could not be numbered; but I am certain that there could not have been less than 2000 joints. With these there was much hæmorrhage, also membranes and other substances. From this date (January, 1831) to the beginning of April of the same year, there were not indications of more tæniæ; yet the urine was generally tinged with blood, and deposited the white sediment in less quantities than formerly. During this period, an anodyne injection had been used almost daily, as the irritation of the bladder was considerable. At this time she again felt the motion of tæniæ, and I again resorted to frequent opiate injections, but without success for some days, and then determined upon the administration of spirit. terebinth. by the mouth; a teaspoonful of which was taken on the morning of the 18th of April, and which passed by the bladder in an hour and a half, bringing off some portions of the worm in a recent state, with a net-like membrane. From this date to September 20th, there were passed from the bladder, per urethram, 1239 joints of different sizes, from one-third to the eighth of an inch in width, and which were all preserved, with portions of a net-like membrane, and fungi, either like the liver or the muscles of a fowl, and sometimes of a fleshy fibrous substance, having the appearance of the muscular coat of the bladder, with a shaggy surface on one side, resembling the villous coat of the intestines. These were brought away almost daily, while the urine diminished in quantity, rarely exceeding four ounces in twenty-four hours. A pause ensued from the last date to November 16th, of the same year; during which time neither worm nor substances passed off, but the fluid discharged was bloody, and always highly offensive. On this day the spirit. terebinth. was again administered, and brought off in an hour two small pieces of net-like cellular tissue, with nine joints of middle-sized worm interwoven with it. From this time to January 18, 1832, there were 773 joints preserved, of different sizes, and these were generally accompanied with membrane and fungi of different kinds. From this date to March 27th, there were no portions of tænia passed; but on that day the spirit. terebinth. was again taken, and before May 1st, 853 joints passed, making a total of 2865 now in my possession, besides a very small and apparently perfect worm of twenty-nine joints. During the period mentioned there have been at different times profuse hæmorrhages from the intestines, surmised to arise from the ascending colon, which have reduced my patient to a very weak state. She is now (August 23) in tolerable health, but again bringing away, from the use of the spirit. terebinth., more tæniæ. On the 21st instant there came off four joints of a small worm, with two small fungi.

"Among the singular and unaccountable phenomena accompanying this affection, is the rapidity with which spirit. terebinth. now passes from the stomach to the bladder. It is invariably felt in the bladder in less than twenty seconds from being taken; and its evacuation, per urethram, rarely exceeds two minutes: on one occasion it passed in one minute and a quarter; and from the recent appearance of the worm and fungi, seems to separate them in passing.

"Mr. Docker is in possession of some specimens of the worm, fungi, and membranes."

In a later communication to Mr. Docker, the following additional particulars of this remarkable case are given:—

"Tuesday Evening, April 15th, 1834.

"I am very sorry that I have hitherto been unable to send you the specimens of tænia, &c. as you requested, and now do so in a great hurry, in order to avail myself of a gentleman's visit to London, who has kindly offered to take a box for me. My engagements, during the absence of my young man at Edinburgh, were so many, that I could not find time to make a selection of my tæniæ, &c. for Mr. Cooper until his return, and now send you a few specimens of the different sizes, with those of the fungi, muscular substances, as I call them, and the net-like membranes. I also inclose a copy or two of my memoranda regarding the effects of the spirit. terebinth., and also the results, for a few days (which may be taken as a fair sample of the whole). You will see by the former the rapid passage of the spirit. terebinth. from the stomach to the bladder, and the increase of that rapidity by degrees to its present point, about eight seconds, and its evacuation in less than a minute, when the orifice is not obstructed by much substance. This is an interesting phenomenon, and worthy of the particular attention of the anatomist and physiologist. As you have been an eye-witness, with many other medical men, it is a fact which can admit of no doubt. The second phenomenon is also remarkable and interesting: the small secretion of fluid by the kidneys. This is always increased by the spirit. terebinth. on the day following its exhibition."

By the table which is annexed to the communication, it appears that the dose of turpentine always produces a peculiar sensation in the bladder in a few seconds, and the evacuation of portions of worm in a few seconds more.

A Treatise on the Diseases of the Chest and on Mediate Auscultation. By LAENNEC. *Translated, enlarged, and improved, by* JOHN FORBES, M.D., &c. Fourth Edition.

It would be superfluous, we think, to offer our readers any detailed account of this justly-celebrated work. The appearance of a new and cheaper edition shows the demand in which it has been held among the booksellers—a good test of the increasing popularity both of the subject and the treatise.

Dr. Forbes has introduced a great quantity of new matter in the notes, and has availed himself freely of the labours of his learned contemporaries: to Dr. Hope and Dr. Williams, we perceive, he acknowledges himself specially indebted, and in return recommends their respective works to all who are interested in the modern method of investigating chest diseases. Appended to the chapter *on the motions and sounds of the heart*, we find an excellent summary of all that has been said of late by various theorists and experimentalists touching this still obscure subject. What Dr. F. says, in conclusion, relative to Magendie's theory, we shall extract.

"Since the first announcement of M. Magendie's views respecting the causes of the sounds of the heart, two years since, by M. Pigeaux, this distinguished physiologist has himself published his opinions on the subject, and which, if they were formerly and are again correctly reported, seem to have undergone a very important change. (See a translation of M. Magendie's memoir in the MEDICAL GAZETTE, June 28, 1834.) He now attributes the *first sound* to the shock of the apex of the heart against the walls of the chest during the *systole* of the ventricles, and the *second sound* to a similar impulse of the anterior surface of the right ventricle during the *diastole* of the ventricles. The principle of the generation of the sound is indeed still the same, but the causes of the individual sounds are in some degree reversed. Against the truth of M. Magendie's principle many arguments may be adduced, and even, it would appear, some well-ascertained facts. I shall here state a few of these, for the substance of which I am indebted to my friend, Dr. Williams, the ingenious author of the first portion of the present note.

"1. In the experiments by Dr. Hope, the impression on Dr. Williams's mind is, that he distinctly heard the two sounds of the heart when this organ was removed from all contact with the thoracic parietes and the pericardium, and when the constant and close apposition of the stethoscope precluded the possibility of any sound being produced by any shock against it: and it will be seen hereafter that M. Bouillaud's conviction is similar.

"2. To say nothing of the inconclusiveness of any arguments deduced from phenomena elicited under such an unnatural condition of things as existed in these experiments, it may be remarked, that the third and fourth are subject to fallacy, inasmuch as 'the sonorous bodies' and 'the sternum of the goose' might have given rise to sounds in consequence of the existence of an interval between them and the heart; a state of parts very different from the natural, in which the heart and the walls of the chest are in apposition, and which unnatural state of parts might have permitted the organ to communicate a shock to the bodies, utterly impossible in the natural state.

"3. The facts adduced in the memoir after Exper. 4, and the 5th and 6th experiments, merely indicate that the sounds of the heart cannot be heard through a considerable layer of air, water, or healthy lung—facts long known; but M. Magendie has yet to prove that any injection of air or water, separating the heart from the walls of the chest, will prevent these sounds from being audible over the left clavicle.

"4. How will M. Magendie explain, in accordance with his views, the incontestible facts of the increased loudness and diminished impulse in dilatation, and the converse in hypertrophy? or the intensity of the sounds in the carotids, and at the top of the chest, in aneurisms of the arch of the aorta and innominata, in which cases they are often heard more distinctly than in the region of the heart itself?

"It would further appear, that since M. Magendie's paper was read before the Institute, M. Bouillaud has performed a series of experiments, with the same object, but with results the reverse of those announced by Magendie. The results of M. Bouillaud's experiments was, that he could always hear the two sounds of the heart although there was no point of contact between the organ and any portion of the walls of the chest. He, indeed, found that the friction of the heart against the end of the stethoscope gave rise to a particular sound; but this (merely a sound of rubbing) was so very different from the natural sound of the heart that the two could never be confounded. It was, moreover, ascertained that the momentary pulsation of the empty organ, after it was separated from the body of the animal, was accompanied by no perceptible sound. M. Bouillaud's own opinion respecting the cause of both the sounds, is, that they are owing to the play of the valves of the heart. (Journ. Hebdom. quoted in Med. Chir. Rev. July 1834.) In reference to this opinion of M. Bouillaud, as also to that of Dr. Hope, I would observe that they both possess a degree of probability in my mind over all those which attribute the two sounds to *two* different causes. Although certainly characteristically different, yet the two sounds have so great a similarity, and are so allied in time and place, that I cannot readily bring my mind to believe that they do not both depend upon one and the same cause slightly modified, or, at least, on the different play of the same parts. But the whole subject wants fresh investigation and the institution of a new set of experiments on large animals,—an investigation which cannot be entrusted to better hands than those of Dr. Hope and Dr. Williams."

The value of the present edition, we

should add, is greatly enhanced by the ample bibliography annexed to each article; and, on the whole, we must say, that the style in which the work has been brought out, is highly creditable to all parties.

Elements of Anatomy. By Jones Quain, M.D. Third Edition, revised and enlarged.

We gave our opinion of this work on a former occasion, and have now only to express our satisfaction, that what we then said has been fully borne out since by the public favour. It is a strong testimony to the merit of these Elements, that two editions have been already exhausted, and that a third comes forth in an enlarged form. The view of general anatomy in the introductory chapter, is full, clear, and comprehensive; and the arrangement of the several compartments of the descriptive portion is as convenient as can be wished. The book, besides, is furnished with good indexes, and ample references to works of authority, native and foreign.

The Surgeon's Practical Guide in Dressing, and in the methodic application of Bandages. By T. Cutler, M.D.

This appears to be a valuable little treatise. The author seems to have spared no pains in procuring correct descriptions of all the surgical apparatus at present employed in bandaging and dressing, both at home and abroad. He has given numerous illustrations, in the form of well-executed woodcuts, and has altogether produced what we conceive to be a very useful, and by no means an expensive, publication.

A Manual for Students who are preparing for Examination at Apothecaries' Hall. By John Steggall, M.D. Sixth Edition.

We are by no means favourable to the short cut to learning usually presented by a *vade mecum;* but we must confess that Dr. Steggall's book constitutes an exception to the general censure. We have here much that is useful in a very small compass, very methodically arranged, and clearly explained. We do not advise young gentlemen to trust to this, or any other "manual," for their full acquaintance with the subjects to which it relates, but are satisfied, nevertheless, that they will find in it both a useful index to what they ought to know, and "a brief chronicle" of the points they are most likely to be examined upon when they present themselves before the Court of the Worshipful Society.

Hahnemannism.—*A Popular View of Homœopathy.* By the Rev. Thomas Everest, Rector of Wickwar, Gloucestershire.

The following cool anathema met our eye as we opened this "popular" pamphlet just published by our *reverend* advocate of homœopathy. We give the passage for the amusement of our readers—for amuse them it must, unless their nerves be peculiarly sensitive.

"*Woe thrice-doubled to him* who is wise in his own eyes, who knowing that a perfect and complete system (viz., of course, homœopathy) claims attention on account of the multitude of its cures, &c. &c. *dares to quoit it down stairs like a shove-groat shilling*, &c. *Be a far lower, deep, and a far darker shade of infamy, the portion of that merchant of miseries* who would delay inquiry, because, if it proved true, he might fall short of some of *those rascal counters with which agony fees his unwholesome palm. Cleave the leprosy of Gehazi for ever to him* who would sell the mighty space of his large honours(?) for as much trash as may be grasped thus. But there is no such man; kind heaven forbid it! lest *the curse of Cain* once more *affright the world!*"

We make no comment on this *spirited* extract, but would merely ask whether the Rev. Mr. E. might not better reserve his zeal for some other cause. The "Ercles," or Boanerges vein, we can assure him, is not the fittest for preaching Hahnemannism in England: and the method of arguing by *commination*, we would remind him, has been for some time out of fashion in this country.

For the favour he has done us in printing at length our remarks on a former epistle of his, he has our best thanks: we are only sorry we have made so little impression on him.

MEDICAL GAZETTE.

Saturday, Nov. 15, 1834.

> "Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."
>
> CICERO.

MEDICAL PROVISION FOR THE POORER CLASSES IN THE METROPOLIS.

THE accident to which we alluded last week—the loss of life for want of timely aid from a parish surgeon—is fresh still in our memory. We fear it is but one of many cases which are constantly occurring in this great metropolis; but of which little notice is taken, from their very frequency. It can scarcely be otherwise in a population so vast, the pauper proportion of which is so considerable, and where the supply of regularly-appointed practitioners allotted to the duty of attending on the poorer classes is so utterly insufficient. Take, for example, the great parish of St. Pancras, where the population exceeds 110,000, and where the workhouse alone usually contains above 1000 inmates: what is the extent of medical provision for the poor, allowed by the parish authorities? For the Infirmary of the workhouse (which commonly contains about 200 patients) there is a resident general practitioner, and, we believe, one physician, who visits there occasionally. For the out-paupers scattered through this extensive parish, which reaches nearly to Highgate in one direction, and to St. Giles's in another, there are *three* surgeons. These gentlemen are, of course, liable to be called upon at any moment, and often obliged to attend at distances most unconscionably harassing; while the pittance they receive for their labours is niggardly in the extreme.

This system of administering relief, is also wretchedly bad in another respect. Before a pauper can be attended by a parish surgeon, there must be an "order" procured, to shew that the unfortunate patient is entitled to be treated medically at the parish expense; and when that requisite is complied with, the surgeon, most probably, is otherwise occupied. Thus it was with the case of last week: some hours were lost before a little liniment could be procured for the burnt sufferer, through the necessary "order," and several more elapsed before the surgeon could attend in person: when he did arrive, it was too late.

There are few who admire more than we do, that *laissez faire* principle—that dislike of interfering with the concerns of the people, unless where it is imperatively necessary—by which our government is characterized above that of all the other states of Europe: but we think that, in certain instances, the observance of the principle may be carried too far. Of late, indeed, there have been measures adopted which tend to throw the poorer and more helpless classes of society more on their own resources than ever, and that apparently without a due consideration of their ability to bear the change. Persons high in authority have denounced the system which has hitherto prevailed, of ministering to the corporal wants of the destitute, and have openly attacked the benevolent institutions of the country—even those supported by voluntary contributions—as hot-beds of penury and demoralization. This may be very philosophical in theory, but it is very absurd in practice. The Malthuses, and the utilitarians of every description, may generalize as much as they please, on the advantages that must accrue to the state from the abolition of hospitals and workhouses; but poverty and disease will not vanish at the bidding of the greatest sage among them. In their prodigious zeal for the regeneration of mankind, the *philosophes* of France, about the period of the first revolution, seriously entertained the notion of destroying all hospitals, infirmaries, and asylums, in that country; but luckily they took a little time to think: a commission was appointed to consider whether it ought or ought not to be done, and the verdict of the enlightened jury—it really was an illustrious one, including, as it did, the names of Laplace, Daubenton, Lavoisier, Bailly, and Darcet—was, that hospitals could not well be dispensed with, but were proper objects for the attention of government.

In this country the government does nothing for hospitals—merely recognizing the existence of some of them; yet, so far as such institutions can alleviate the immediate distresses of the humbler classes, thanks to the benevolent spirit that animates the higher orders in the community, nothing is wanting. It is therefore, perhaps, so much the better that there is no interference on the part of the state. The generous principles of the more fortunate members of society are thus directly enlisted, and actively engaged in behalf of their poorer brethren; and a sort of family feeling prevails among us—the foundation, no doubt, of much of our nationality—to which nothing comparable is readily found among our continental contemporaries. Would that an equally anxious desire were entertained by the poorer portion of the population, to be enabled to *aid themselves* by a provident regard for the future! In the absence or the withdrawal of aid from without, the existence of such a principle were better than treasures.

The self-supporting dispensary system is that which, above all others, seems calculated to meet the emergency, and to suit the circumstances of the times. It is reducible to practice even among the humblest: it has been tried in different provincial towns, and found to have the most promising, the most satisfactory results. Nor are the direct benefits arising from it to those who have embraced it, more conspicuous than the advantages which it confers upon the profession, and the invaluable boon it bestows on the country at large in the shape of sober, steady, and provident citizens. But we have so often and so fully expressed our approbation of the system, that any thing we should now add regarding its general merits must have an appearance of superfluity: it were, at the least, a tale twice told.

Entertaining such sentiments as we do of the value of the "self-supporting" principle, and particularly with reference to the actual wants of the community, we cannot but wish that the system had a fair trial in the metropolis. We are not ignorant of the fact that it has been attempted to be established in one or two districts of the town; but a *fair* trial it has not yet had. The numerous dispensaries and benevolent societies about London, and the medical services therein so liberally tendered, are, we know, a main impediment to setting up the Smithian system on a proper footing. The motives for its adoption here do not press with any thing like the force which attends them in places less abundantly stocked with charitable institutions, and a *corps medicale* full to overflowing. But all this constitutes only a difficulty, not an impossibility, in the way of erecting dispensaries on the excellent principle in question,—a difficulty which will be ultimately surmounted by a steady adherence to the grand object in view, with a fixed resolution to attain it. No *compromise* in the matter can be productive of any good: and we suspect it has been owing to a mistake of this kind that some reasonable progress has not already been made in establishing the system in the metropolis.

We understand that certain very questionable modifications of Mr. Smith's plan have of late been adopted in London. *Ticket-selling*, for example, has its partisans among those who perhaps mean well, but are imperfectly acquainted with the only correct principles on which the self-supporting dispensaries can repose. This plan of selling tickets *to persons in sickness* is one of great facility of application, but at the same time fraught with gross abuses. It is a plan which can lay no claim to the merit of fostering that provident feeling in the poor which is so desirable on every account: nor can we see in it the least protection for the interests of the profession at large. It opens the door to abuses on the part of certain medical men, who, having little or no practice, find ticket-selling a convenient mode, however degrading it may be, of obtaining some: and such persons, as may be supposed, will not be very scrupulous as to the parties to whom the tickets are sold,—most probably to persons quite able to remunerate their medical attendants in the ordinary way, but who are induced to purchase tickets through a spirit of niggard economy. The plan, in fact, thus modified, resolves itself into one for selling cheap physic, to the injury of the profession, and the ruin of the system on which it professes to be founded.

Members of a self-supporting dispensary should only be admitted *while in health;* and their fitness for admission should even then be inquired into by a competent committee, who would exercise impartial justice between the candidate and the medical man. Institutions of the self-supporting description, it should be recollected, are designed to supersede charity, and to cultivate a provident feeling in the poor, by enabling them, when in health, by small periodical payments, to insure the privilege of attendance in sickness: but at the same time, it should be borne in mind that they are intended for the benefit of *the poor only*, and should be strictly confined to their use by proper arrangements, scarcely admitting of any infringement; otherwise the interests of the profession at large must assuredly suffer.

The true principle of the self-supporting dispensary system has not yet been fully developed: the advantages which will arise from it, if it be duly acted upon, are, we think, as yet but imperfectly understood: and perhaps the difficulties which are supposed to obstruct its more general adoption are overrated. But in every point of view we consider it as a subject well worthy of the attentive consideration of practitioners; and we cannot lay aside our pen without once more recommending it to their most earnest attention.

CONTROVERSY AT ST. GEORGE'S HOSPITAL.

Having given insertion last week to the letter signed by three of the physicians and the like number of surgeons of St. George's Hospital, and also to that of Sir Benjamin Brodie, we cannot of course hesitate in admitting the answers of Dr. Wilson and Mr. Walker. We should have limited ourselves to the insertion of their letters, had not the former imputed blame to us for inserting the circular of the physicians and surgeons above mentioned, as well as for expressing the opinion we did upon the subject. The question stands thus:—Dr. Wilson writes as though the physicians and surgeons were the aggressors, and holds that the allegation which they declared to be untrue, had never been made. In approving of the letter, we thought that it had been called forth by an attack upon their colleague and themselves; and on again referring to the newspaper, we still maintain that such was the case; nor are we the only editors who have taken this view *. But that our readers may judge for themselves, we subjoin the paragraph alluded to; and we beg it may be observed, that the types, as to italics, capitals, &c., are copied from the *Morning Chronicle*, without any alteration.

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* "During the active canvass, an anonymous notice appears in the Chronicle, reflecting discredit on Mr. Brodie *and his colleagues*."—*Renshaw's Medical and Surgical Journal*, Nov. 15, p. 506.

Quotation from the attack on Sir B. Brodie in the Morning Chronicle.

"Without making any invidious reflections, we would simply ask whether or not Sir B. Brodie has not been the principal agent and most active canvasser, not only among his brother medical officers, but among the proprietary where he has such personal influence, in persuading them to appoint an *additional* and (if Mr. Walker, whose active and valuable services are acknowled on all sides, is to be believed) *uncalled for* assistant? and whether or not—and we call upon the governors 'to read, mark, learn, and inwardly digest'—his OWN PRIVATE ASSISTANT (WHOM, in order to avoid the appearance of a JOB, he took special care *not to nominate* HIMSELF), be not one of the candidates? and whose success will be rendered certain, unless the governors shall in this 'eleventh hour' judge for themselves and select Mr. Lane, who has filled all the subordinate situations of dresser, house-surgeon, &c., and who has, from his talents, attention, and consideration to the poor objects under his care, fully entitled himself to be the selected FAVORITE."

Now the above passage (the whole of which is actually one continuous and uninterrupted sentence), is evidently the production of some illiterate person; besides which, we regard Dr. Wilson as too much a man of honour to descend to anonymous slander: for both which reasons we assume that he, like us, can only judge of the writer's meaning by his words.

We submit, that in the above passage the public is given to understand — first, that the appointment of a second assistant-surgeon being "uncalled for," was a JOB of Sir Benjamin Brodie's to serve "his OWN PRIVATE ASSISTANT;" secondly, that he used his "personal influence" with "his brother medical officers," in "persuading them" to consent to the appointment, notwithstanding that — thirdly, another candidate, Mr. Lane (from certain qualifications which are pointed out), had "fully entitled himself to be the selected FAVORITE." Either this is the meaning of the passage, or we profess not to know what the meaning may be. Now even had there been no allusion to the other medical officers, we think that it would nevertheless have been cowardly and contemptible on their part, not to have stepped forward to support their colleague against so wanton an aggression; besides which, we are still of opinion, notwithstanding Dr. Wilson's letter, that the imputation of being subservient to Sir Benjamin Brodie in the perpetration of a job, and promoting the election of his private assistant because he *was* his private assistant, to the exclusion of a better man, was attributing to them "dishonourable motives," and rendered it imperative on them to declare publicly that the imputation was "absolutely untrue."

Dr. Wilson informs us that we are "very partially acquainted with the opinions and feelings of the profession on the subject." We believe Dr. Wilson to be mistaken in this respect, and that disapprobation not less "warm and honest" than that which he has expressed for the letter of his colleagues, has been excited most keenly and generally by the calumnious slander on Sir Benjamin Brodie which called it forth.

We have touched only on the points in which we are ourselves editorially involved, in consequence of Dr. Wilson's observations;—as to the special pleading on other matters contained in his letter, it is for his opponents to deal with it—if they think it worth their while.

We have also to acknowledge the receipt of a note from Mr. Walker, by which we are relieved from much embarassment. He published a letter in the *Morning Chronicle*, on Friday, the 7th, which was intended as an answer to that of Sir Benjamin Brodie, and which, therefore, it appeared to us that we ought to give in this journal, as we had done the former. But, on the other hand, it contained several things which we feared it might be deemed illnatured towards the writer to place on permanent record — particularly the avowal contained in the second sentence. The manner, however, in which Mr. Walker appeals to our candour and fairness in the note which accompanies his letter, deprives us of any choice.

P.S.—As this was passing through the press, we received Renshaw's Medical and Surgical Journal. The extract which we subjoin will perhaps tend to convince Dr. Wilson that the current of feeling does not *all* run in the direction he would wish, and that we are not quite so "partially" informed as he supposes: — "We think, and we have watched the proceedings at St. George's attentively, that Mr. Brodie has acted with much judgment, and has reflected honour on himself. The motives of Mr. Walker's objection are obvious to every one;—monopoly is an inherent feeling not absent from the breasts of many individuals."

DR. WILSON'S LETTER.

To the Editor of the Medical Gazette.

SIR,

IN a letter addressed by certain Physicians and Surgeons of St. George's Hospital to the Governors of that institution, under the date of November 5, and published by you in the Medical Gazette of this day, there are many confusions of statement and inference, involving me in my character of Physician to the hospital, and which I therefore feel myself called on at once to correct. The letter to which my remarks are directed is in its nature ephemeral,—written and circulated avowedly for an electioneering purpose of the twenty-four hours next ensuing on its publication; and believe me, sir, that I should have left it to the opinion passed upon it in those twenty-four hours, had you not thought fit to keep it before the public for a week beyond the natural term of its existence. Perhaps, sir, I may be thought somewhat over anxious for fame, in directing the attention of your readers to the omission of my own name in the list of physicians to the hospital who have affixed their signatures to this document; but still I think it right thus publicly to inform them, that until I saw the letter in print, I had not the least idea of any such unusual proceeding having been contemplated by my colleagues in charge of the medical business of the hospital. The letter, be it then remembered, sir, was never submitted to me, one of the physicians of the hospital, for approval; it was printed, published, and circulated without my knowledge, and was first put into my hands by a pupil of my anatomical school, grieved and indignant at what, in his warm and honest feeling, he considered to be an unjustifiable attempt to depreciate the professional claims and character of his teacher, Mr. Lane, on the eve of the morrow's ballot. I may here remark, that I have not been even honoured by the presentation-copy of this published letter, which in courtesy should have been transmitted to me as a physician and life-governor of the charity, whose interests, we are advised, would be best served by the election of the candidate therein recommended.

That I should have subscribed to many of the opinions expressed in this letter, my friends must know to be impossible. I am glad to observe that my colleagues have done me equal justice. Utterly deprecating the principle of combined interference on the part of the medical officers, between the Governors of the hospital and the candidates for their favour,—a principle rendered more obtrusively improper by the time and circumstances under which the letter implying it was written—by the date, and by the place of its publication,—I shall offer no further comment upon its three first paragraphs; they relate to the particular views, considerations, and motives, of particular surgeons and physicians, of which I have no knowledge, and with which I have no right to interfere. I will merely express my honest belief, that in the discussions preceding the appointment of a second assistant surgeon, and in the progress of the canvass for such appointment, there have been about as many unfounded reports, and about as much misrepresentation, on one side as on the other, and that to both a large share of such discredit belongs.

But in the fourth paragraph of the letter your readers will observe, sir, that "the undersigned physicians and surgeons of the hospital" become at once "the physicians and surgeons of the hospital" *generally*,—not, however, be it understood, by my adhesion to their proceedings; and thus I am obliged to protest against being considered in any way responsible for the opinions which follow. I beg therefore unequivocally to declare, that in my humble opinion, no appointment or right of patronage whatever should be suffered to exist in the establishment of the hospital by its Governors, that can in any way be avoided consistently with the efficient discharge of the medical and other duties of the institution.

It is almost needless to assert, in opposition to what is advanced in the letter of the six physicians and surgeons, that very great personal advantage might occasionally accrue to them, by increasing the number of the officers—an advantage not less than that of securing, under an auspicious election, for a relation or friend, the reversionary share of emoluments, amounting to not less than about two thousand two hundred pounds, annually raised in fees from the pupils in attendance on the medical and surgical practice of the hospital, exclusively of other large sums produced by the several lectures delivered by the medical officers of the hospital.—Certainly, from the appointment of assistant physicians or surgeons, who receive no part of the sums thus annually raised, there can be no possible disadvantage accruing to the full physicians and surgeons of the hospital. On this paragraph, to which in its complete form I beg the attention of your readers, I will further remark, that the appointment of a second assistant-surgeon was not recommended by the physicians and surgeons of the hospital in their collective capacity, which, from the sentence as it stands, the Governors would necessarily be led to believe. The degree of support which this measure received from the physicians of the hospital individually, will be best remembered by those who took part in the oftentimes repeated conversations and discussions on this subject in the board-room of the hospital, five months back. Answering only for myself I can assert, that I was then, as I am now, strongly opposed to the principle of this appointment, and to the way in which it was brought forward, believing it to be unnecessary, and therefore holding it to be improper.

In proceeding with the further examination of the averments made in the letter of the six physicians and surgeons, you, and your readers, sir, will not be a little surprised to find, in collating this part of the letter with an article in the Morning Chronicle of the 4th instant, which it professes to answer, that no such allegations as stated in the letter are actually put forth in that journal. On a moderately attentive perusal of the objectionable article in the Chronicle, it will be seen that dishonourable motives are not attributed to the physicians and surgeons of the hospital in their selection of a candidate, and that Sir B. Brodie is not represented to have used undue influence of any kind to induce them to vote for his private assistant; that no imputation attaches to the medical officers which does not attach to what the writer of the paragraph terms "the proprietary;" that "the absolutely untrue allegation" assumed by the six physicians and surgeons in their letter, is more insignificant than even falsehood itself,—that, in truth, it does not exist: to be brief, sir, it is an allegation that was never alleged; and yet, on this "absolute" nothing, an opportunity is constructed for advocating the cause of one candidate, to the prejudice of another. An excuse for this strange oversight on the part of the six combined authors must be found in the haste necessary for the composition, publication, and circulation of the *two* editions of their letter, in the interval of time between Wednesday November 5, and Thursday November 6, on the afternoon of which day it met the country Governors, on their arrival in town for the Friday's ballot. The extent to which correction of the press "has been had recourse" in one edition of the letter, is satisfactory evidence of the extent to which carelessless "had been carried" in the other.

To Mr. Lane's judgment, to his spirit, and self-respect, I leave the task of replying to the statements respecting his intentions of profit, his calculations of actual profit and loss, in the construction of his anatomical theatre, as an affair of sale and barter. Ample justice has already been done to this part of the letter, by many of the Governors assembled in the board-room on Friday last, in their criticisms of this particular paragraph, inserted, you will observe, between vague charges of slander, and, apropos, of nothing.

I may perhaps here be allowed, as a physician of the hospital, to express my most grateful thanks to Mr. Lane, for having supplied to our hospital school what it most needed, and what no one else could be found to provide for it—a well-constructed anatomical theatre, with dissecting rooms immediately adjoining the walls of the hospital. It is absurd to maintain that any claim preferred to the notice of the Governors by Mr. Lane, or his successors in this school, could supersede their patronage in the appointment of their medical officers, or deprive them of the absolute power to be exercised by their individual votes in the ballot for such appointment. It is well known to each of the six physicians and surgeons who signed the address to the Governors, that a right of control over Mr. Lane's anatomical school has been more than once offered to them, and that, had they been willing to exercise such right, they might long ago have done so.

And now, sir, in reference to the editorial remarks with which you introduce what you are pleased to entitle, "the letter of the physicians and surgeons of the hospital," it is with sincere concern that I am compelled to tell you, that the publication of such letter in your journal will have an effect very different from that of rendering all further allusion to the subject of it unnecessary. Be assured, too, sir, that in the excitement of this canvass, and in the circumstances which led to it, much, very much, has occurred, in addition to the publications to which you allude, which will bring disgust to all honourable and candid minds. And should you really suppose, sir, that irreparable injury is inflicted by these ill-judged publications, on the parties whom, as you assert, they are intended to serve, I will venture in truth and in courtesy to assure you, that you are very partially acquainted with the opinion and feelings of the profession on the subject of this election; and that you greatly overrate the power of the daily and weekly press in these matters; and that you are, moreover, but little acquainted with the firmness of our common English nature. The honest unobtrusive industry of years, the gathered love and respect of friends and pupils—the grateful recollection of *their quick but ready zeal in the struggle* just past—will not be at once cancelled by the communication of an anonymous correspondent in a newspaper, of an over-busy friend it might be—it might be of an over-cunning enemy; or even, sir, (and in all good humour be it spoken,) by the leading article of a weekly medical journal.—I am, sir,

Your obedient servant,
JAMES ARTHUR WILSON.
One of the Physician's to St. George's Hospital.

London, Nov. 8, 1834.

To the Governors of St. George's Hospital.

MY LORDS AND GENTLEMEN—In the papers of this day, I have seen a letter from Sir Benjamin Brodie, in answer to some observations which appeared in the *Chronicle* of the 4th instant; and it is quite manifest that the insinuations thrown out by him are intended for no other person than myself. I must, therefore, distinctly deny being the author of that paragraph, though I have no hesitation in stating that I have unreservedly related all the facts connected with the recent proceedings at the hospital to every individual I met with, earnestly hoping that the particulars would find their way into the press, and would lead to the explanation which would now necessarily take place.

This, my Lords and Gentlemen, is what I have earnestly wished for, since a candid hearing has been denied me at the proper tribunal.

Sir Benjamin's statement with respect to the varying number of assistant-surgeons at different periods may, at first sight, appear to carry weight with it; but I trust I shall be able to show that his reasoning is utterly fallacious. At the period to which Sir B. refers, there were no assistant-surgeons to the hospital; individual surgeons who had been many years attached to the institution, it is true, applied for particular persons to be appointed assistants to themselves, and the Governors, not wishing to compel these surgeons to resign, granted the application: thus Mr. Keate was appointed assistant to his uncle; Mr. Brodie to Everard Home; and Mr. Ewbank to Mr. Griffiths; but these gentlemen were never assistant-surgeons to the hospital, though they were unanimously elected surgeons, in rotation, as vacancies occurred in that department. But during the very time that Mr. Brodie was assistant to Sir E. Home, Mr. Gunning being called upon to attend the army as surgeon general in the Peninsula, the patients of Mr. G. were likewise entrusted to Mr. Brodie's care, who attended them *with all the zeal and punctuality which* the importance of the charge demanded: thus having under his own care the in and out patients of two surgeons, just half the number admitted on the surgical part of the establishment. This will, I think, show that now an assistant-surgeon is regularly appointed to the hospital, who takes constant charge of the out-patients of the two senior surgeons, and is always ready and anxious to lighten their labours amongst the in-patients, that there can be little real demand for the appointment of a second assistant; for even if the maximum number of beds alluded to by Sir B. be immediately filled, the average division of the surgical patients will not, most assuredly, increase the labour for each surgeon so much as to require an additional assistant.

I will not now dwell on the former custom of appointing private assistants: it is well known to many Governors, and was found so highly objectionable on many accounts, that it was deemed advisable to add one assistant to the regular hospital staff. I am grieved to see a gentleman, holding the elevated position in society which Sir Benjamin does, coming forward to give currency to an assertion which he must, if he has an honest memory, know to be incorrect. I did not object to the appointment, upon grounds which he states, a monopoly only; and it must be manifest to the Governors that such a request coming from the surgeons, and that without my being made acquainted with their intentions, becomes at once a question of character; and the apparent natural inference which strangers would draw, would be the inefficient performance of the duties by the present assistant. In fact, Sir B. did insinuate something of this kind, but I challenged inquiry, and these insinuations were withdrawn, and a most satisfactory Resolution as to my conduct carried unanimously at the Board, on the 1st of July, and entered on the minutes of the Hospital. I feel called upon to give this hasty but immediate reply, as the letter from Sir B., while most unjust and unfair towards myself, is calculated to be of serious injury to my friend Mr. Lane, whose high qualifications as to moral worth and professional character are before the Governors, and I have confident hope that they will give him their utmost support.

I have the honour to be,
My Lords and Gentlemen,
Your most obedient humble servant,
R. B. WALKER,
Assistant-Surgeon to St. George's Hospital.

27, Curzon-Street, Mayfair.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY;

LATE

MEDICO-CHIRURGICAL SOCIETY.

Tuesday, Nov. 11, 1834.

The New Charter.

The Fellows of this society held their first meeting for the present session, on Tuesday evening last, at the house of the President. The meeting was numerously attended; none of the ordinary business of the society was transacted, the time of the Fellows having been exclusively occupied in discussing questions arising out of the grant of a charter of incorporation, just received from the Home-office. After taking the chair, the President proceeded to read the charter, which ran in pretty nearly the terms usual, so far as we know, in such cases—viz. His Majesty declares himself patron of the society, willing, that the members shall be entitled "*Fellows;*" the incorporation be styled "*The Royal Medical and Chirurgical Society of London;*" the incorporation be qualified to plead and be impleaded; be entitled to hold property to a certain amount; consist of a council and fellowship, &c. &c. It contains, also, several other provisions, which appeared to us to be borrowed from the old statutes, of which, in fact, the instrument seemed in the main a summary or abridgment, leaving, however, abundant discretionary power, as to details or *by-law* (the charter term) legislation, in the hands of the society. The only names mentioned in the instrument are those of the President (Dr. Elliotson), Sir Astley P. Cooper, and Dr. Yelloly—the two latter distinguished gentlemen being the survivors of the original petitioners, in conjunction with the late Dr. Marcet. After the charter was read, many gentlemen offered suggestions; but in consideration of the novelty of the society's position, and the importance of the first proceedings in a legal point of view, it was resolved at length that a general meeting should be held that day fortnight for finally determining what should be done, and that meanwhile the charter should be printed and put in circulation among the Fellows; and the meeting adjourned, without having taken any final step, except voting an humble address of thanks to the King for his gracious patronage and royal charter.

The meetings, we understand, are to be held at the house of the President, until the society's apartments in Berners-street are quite ready for occupation. We are informed, that should time permit, there will be read on the next occasion, viz. the fourth Tuesday of the month, a paper by Dr. Wilson Philip.

GLASGOW EYE INFIRMARY.

Case I.—*Crystullino-Capsulitis.*

Robert Dunn, a seaman, aged 38, admitted by Dr. Mac Kenzie, 18th Sept. 1834.

The left pupil is somewhat less than the right, of an egg-shape, and moves little on exposure to different degrees of light. When the eye is viewed through a magnifying glass of an inch focus, an infinite congeries of red vessels is seen within the verge of the pupil, on the lower outer part of the anterior hemisphere of the crystalline capsule. He says the vision of the left eye has been dim for seven years; at which time he was affected with severe pain in the eye and head. About three weeks ago he had another attack of redness and pain of that eye, since when he has been affected with a feeling of stiffness in moving it from side to side, and an additional dimness of sight. He attributes the last attack to cold.

Venesectio.—Belladonna ad palpebras sinistras.

℞ Submur. Hydr. gr. vj. Opii, gr. j. M. ft. pulvis, h. s. sumendus. Cras mane capiat Sulph. Magn. ℥j.

19th.—Blood not buffy; feels his eye less stiff; pupil very little dilated.

Capiat Pil. ex Submur. Hydr. gr. ij. et Opii, gr. ss. ter in die.

21st.—Complains of circum-orbital pain.

Cucurbitula cruenta ad tempus sinistrum.

22d.—No pain since the cupping. Red vessels in capsule do not appear so much aggravated. Vision clear.

25th.—Pupil considerably dilated; some slight adhesion of the outer lower edge of the pupil to the crystalline capsules; vision much improved; red vessels in capsule much shrunk.

27th.—Mouth pretty sore.

Omittantur pilulæ.

Case II.—*Crystallino-Capsulitis.*

John M'Kenzie, a worker in a foundry, aged 16, admitted by Dr. Mac Kenzie, 18th October, 1834.

Right eye pretty natural, and its vision good. Thinks he never saw perfectly with his left eye, but at no time has it been affected with any considerable pain. Has often had *fires* on his eyes, and there is a small particle of cast-iron imbedded beneath the conjunctiva on temporal side of right eye, which gives him no uneasiness. The left pupil is less than the right, and the left iris a little different in colour from the right, and somewhat dull in its appearance. The left pupil is irregular in shape, but its motions are lively and extensive. On concentrating the light with a large lens upon the left eye, the anterior hemisphere of the crystalline capsule seems slightly opaque; but on looking at it through a lens of short focus, it is seen to be covered with innumerable red vessels, which are spread pretty equally over the whole of it. At the upper-outer edge of the pupil there is a small swelling of the iris. The pigmentum nigrum within the verge of the right pupil, presents its natural appearance and deep-brown colour, when viewed through the lens; but round the verge of the left, it is not so distinctly seen. Vision of left eye is so dim that he does not see the letters on the Infirmary card, while with the right eye he reads it easily. Tongue foul; pulse 72.

Venesectio.—Capiat Pil. Submur. Hydr. gr. ij. et Opii, gr. ¼, ter in die. Belladonna ad palpebras sinistras.

19th.—Blood not buffy. Pupil scarcely dilated.

Vesicatorium pone aurem sinistram.

22d.—Thinks vision of left eye somewhat clearer.

Capiat Olei Ricini, ℥j. Instillatur in oculum sinistrum gtt. solutionis aquosæ Belladonnæ.

27th.—Mouth sore.

Omittantur pilulæ.

29th.—Left pupil somewhat dilated, the aqueous solution of belladonna having been applied once a day. Red vessels in capsule are evidently somewhat shrunk, and are more scattered than at his admission. Vision continues to improve.

Cases of crystallino-capsulitis are probably not unfrequent, but, as they present only very slight symptoms to the naked eye, are very apt to escape detection. This disease is, no doubt, the foundation of many capsulo-lenticular cataracts.

GUY'S HOSPITAL.

Operation for Strangulated Femoral Hernia.

An Irishwoman, æt. 66, was admitted into Esther Ward on Friday last, under the care of Mr. Key, with strangulated femoral hernia of the left side, which had existed five days. Considerable tenderness was present over the abdomen when slight pressure was made. There was great anxiety of countenance, and her features made her appear more aged than she really is. Her strength was considerable. All the usual symptoms of strangulated hernia were present.

Mr. Key determined upon operating immediately. The woman was brought into the theatre at eight o'clock P.M., when Mr. Key commenced by making an incision across the tumor parallel with Poupart's ligament; another incision at right angles with this, was carried directly upwards from its centre, thus forming the letter T inverted. The flaps were dissected back, and the true coverings exposed. The peculiar fæcal, or gangrenous odour, was now evident through these tunics. Mr. Key now divided the fascia propria (consisting of the cribriform fascia, the anterior portion of the femoral sheath, and the crural septum) upon the director. The sac thus exposed was then opened, and the intestine, which was merely a small knuckle, was found in a sphacelating condition.

The stricture existed at the usual place, namely at Poupart's ligament, and was readily relieved by dividing some few of its inferior fibres. The gangrenous portion of the intestine was then opened, and brought in apposition with the external wound, so as to form an artificial anus; the patient was then removed to bed, and brandy with laudanum ordered to be administered during the night.

At the conclusion of the operation, before the pupils left the theatre, Mr. Key made a few remarks relative to the operation. It is to be hoped that this example will be followed by the other surgeons, and that practical remarks be made at the time, and upon the spot; for it is undoubtedly the most effectual mode of conveying information.

On the following morning the patient's pulse was found still to be good, though her countenance was expressive of the greatest distress. The fæces had passed by the wound. She had dozed a little during the night. Four or six ounces of brandy, with a drachm of laudanum, had been given at intervals during the night and fore part of the morning. The brandy was ordered to be continued.

Sunday morning.—She has passed a better night, but still has tenderness over the abdomen. The pulse is tolerably good. Her fæces pass freely from the wound, but none pass per anum. Her powers are greater than could have been expected. Complains of sickness, which she says is checked by taking the brandy.

Monday morning.—Has little or no tenderness over the abdomen; was very restless during the night, having had very little sleep. Her pulse is still tolerably full, and of moderate power. Has hiccough, which is not constant, but is present for a short time, and then leaves her. The fascial coverings to the hernia, which were divided, have sloughed for a short distance around the wound, and were removed by Mr. Key with a pair of dressing forceps. The wound is looking healthy, and the fæces have a ready passage through it. The woman appears to be suffering simply from want of power. Mr. Key ordered her a table spoonful of brandy every hour. Porter, which she expresses a great wish for, is allowed *ad libitum.* Mr. Key has likewise prescribed—

> Infus. Serpentariæ, ℥iss.; Tr. Card. C. ʒij. to be given every sixth hour.

Tuesday morning.—Is in every respect much the same as yesterday.

The patient gradually sunk, and expired early on Thursday morning.

Fracture of the Ilium, with Dislocation and Rupture of the Ligaments of the Knee.

Several severe accidents have been admitted into this hospital during the last week. One case more particularly worthy of notice was brought in on Thursday evening, where the ilium was fractured below the anterior superior spinous process, with dislocation at the sacro iliac synchondrosis. The knee was likewise dislocated, all the ligaments having been ruptured except the ligamentum patellæ. The man, who is about 30 years of age, has great power, for the constitutional excitement which is induced is not near so considerable as might have been expected. Sir Astley Cooper has seen the case, and his prognosis is favourable. The leg is placed on a double inclined plane, with lateral splints to give support to the knee; the pelvis has a bandage passed around, to give it support.

The man possesses power to retain and expel his urine and fæces. It is rather singular that so serious an accident could have occurred without materially injuring either of the important organs contained within the pelvic cavity.

A PUPIL.

ST. GEORGE'S HOSPITAL*.

Acute Hysteria, simulating Peritonitis.

HARRIET CANNING, æt. 17, admitted August 6th, under the care of Dr. Macleod. Complains of very acute pain in the right iliac region, extending towards the umbilicus. The slightest touch, when her attention is directed to the part, excites the most exquisite pain; but if the attention be diverted, firmer pressure is borne with scarcely a consciousness of the contact. Pulse variable, but the prevailing character is that of frequency, with softness. Tongue whitish, moist; bowels regular; general appearance delicate.

The pain came on a week ago, and has continued unmitigated up to the present time. Catamenia appeared about the same period, after an absence of many weeks.

> ℞ Pil. Galban. Co. gr. v. fiat Pilula, ter die sumenda.
>
> ℞ Assafœtid. Gum. ʒss. Aquæ Tepidæ, ℥vj. M. fiat enema vespere injiciendum.

8th.—The pain was so much relieved, that pressure could be borne yesterday under any circumstances, without complaint; to-day, however, there is some return of the pain, in the same spot as before. Bowels rather confined.

> Pil. Aloes et Assafœtid. gr. v. ter die. Decoct. Aloes Co. ℥iss. cras mane. Empl. Belladon. c. Camphora*, parti abdominis dolenti.

14th.—Free from pain; bowels open; tongue clean.

Perstet.

16th.—Bowels very much purged; pain a little below the right mamma, increased by pressure, or deep inspiration; some return of the pain formerly complained of in abdomen; headache; tongue disposed to become furred; skin cool; pulse natural.

> ℞ Mist. Cretæ; Infus. Catechu, aa. ℥iij. Tr. Opii, ʒss. M.—sumantur Coch. Magn. ij. post singulas dejectiones liquidas.

[Diarrhœa was at this time very prevalent in the hospital.]

17th.—Purging stopped.

> ℞ Træ. Valerian. Ammon. ʒj. Aquæ Menth. Pip. ʒxi. M. ft. haust. t. d. s. Omittantur alia.

19th.—Quite well.

She was discharged in a few days afterwards, freefrom complaint.

REMARKS.—The striking features of this case were the aggravation of the pain on pressure, to an extent bearing no proportion to the force employed, and the immediate reduction of this exalted sensibility to the natural standard, or at least the temporary cessation of the symptom, by engaging the attention with something alien to the complaint. No symptoms more clearly distinguish between inflammatory and nervous disorders than these. In inflammation, the pain produced by pressure bears a relation to the force employed; nor does mental abstraction, unless very profound, enable the patient to endure external impressions without being instantly awakened to their presence. Yet it is astonishing how many cases of nervous disorder are brought to this hospital, wherein, prior to admission, an erroneous diagnosis having been made, a plan of treatment has been pursued calculated rather to perpetuate than remove the disorder. A girl complains of acute pain in the right hypochondrium, for example, aggravated by pressure or deep inspiration, and, forthwith, severe depleting measures are had recourse to, because this symptom happens to stand *in the list* of those indicative of inflammatory action. I have known it occur more than once, that, on being interrogated as to her complaint, a patient has replied, "I have got an inflammation of my liver; the medical gentleman who has attended me, told me so. I have been bled for it, and have had leeches applied, but am no better than before."

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* The cases in the No. for Nov. 1st, page 173, were treated by Dr. Seymour.

* The plaster used by Dr. Macleod, under the above designation, is composed of equal parts of extract of belladonna, emplast. saponis, and camphor: care being taken that the heat of the spatula be not so great as to dissipate this last ingredient.

It is from directing the attention to one symptom alone—the most prominent it may be—that such errors arise; but if, on the contrary, we connect carefully all that present themselves—the negative as well as the positive—there will occur but few instances in which doubt can exist. The case above-related is one of frequent occurrence, and very fitted to illustrate my remarks. There was severe pain under the circumstances pointed out, but with this there was no hardness of the pulse, no coating of the tongue, no dryness of the skin, no thirst—no symptom, in short, indicative of the febrile excitement that marks the existence of inflammation; and though the report of the 16th would seem to indicate a relapse into a condition, worse even than that originally complained of, this arose, manifestly, from the debilitating effects of the accidental diarrhœa. The great majority of hysterical patients do not bear reducing measures: attention to the bowels, with the employment of the diffusible stimuli and the fœtid drugs, I have known, again and again, to remove quickly the most severe pain, though it may have lasted for weeks, and have defied the most active depleting treatment. The application of the belladonna and camphor plaster, in the case of Canning, brought relief after the lapse of a few hours only; and this likewise is an effect I have witnessed many times in the wards of St. George's Hospital.

The clinical books of the physicians abound in cases of hysterical disorder, for which the sufferers have applied for hospital relief, as a sort of last resource, and of which they have there been cured in the short space of a week or ten days.

Amenorrhœa speedily cured by Leeches to the Groins.

September 3d, Mary Moulton, æt. 16, admitted under the care of Dr. Macleod. Complains of pain a little beneath the right mamma, extending across the chest towards the left side; not increased by deep inspiration, and unattended with cough. Has frequent nausea, and vomited a small quantity of blood a few days ago. Bowels habitually costive; pulse 100; skin hot; catamenia absent four months.

Applicentur Hirud. xij. inguinibus.

℞ Pil. Aloes et Assafœtid. gr. x. omni nocte. Utatur Balneo Coxario, alterna quaque nocte.

5th.—Catamenia appeared, though rather scantily, immediately after the leeching. Pain in the chest relieved; bowels open; pulse and skin natural.

Repetantur Pilulæ.

13th.—Has occasional flying pains about the chest, but her general feelings are very much improved.

Pil. Galban. Co. gr. v. t. d. Decoct. Aloes. Comp. ℥iss. alt. auroris.

19th.—Discharged cured.

REMARKS.—It does not often happen that the menstrual discharge is made to flow by the application of a few leeches to parts in the neighbourhood of the organ supplying that secretion: it is for the purpose of adding one to the scanty list of such successful cases that I am induced to record the foregoing example; but I am inclined to believe that the infrequency of the occurrence arises, in a great measure, from two circumstances—viz. an injudicious selection of the cases for which the remedy is adopted, and its ill-timed application. It would be absurd, of course, to have recourse to local depletion in a patient whose disorder was connected with a languid condition of the general circulation; but the case before us was one indicative of sufficient constitutional power, though restrained by some local derangement of function. The accustomed period had arrived, and symptoms existed which seemed to shew that nature was making an effort to establish regularity of action in the peccant organ. There were a quick pulse, and a hot skin. The physician, therefore, perceiving the opportunity, supplied the little assistance that nature required, and at the very moment she needed it.

Perhaps the discharge of blood from the stomach may have been an attempt, on the part of the constitution, to effect vicarious menstruation: at all events, it is well know that vomiting of blood is more common during retention of the menses than at any other time.

A Pupil.

MIDDLESEX HOSPITAL.

CASE OF PERICARDITIS; WITH REMARKS.

To the Editor of the Medical Gazette.

Sir,

I am desirous of presenting to your readers a case of pericarditis, unusually interesting, now under treatment in this hospital.

I am, sir,
Your obedient servant,
G. C.*

Middlesex Hospital,
Oct. 29, 1834.

It is a painful circumstance to witness the servile attention and regard that medical pupils pay to such works as Thomas's Practice of Physic, and other elementary works in this department; but equally painful is it to see them guided by the opinions their authors adopt: one elementary work especially discourages young men from studying auscultation at all, and the author's pretext is readily seized as a good excuse for not devoting a few months' assiduity to a course of study which will ever prove of inestimable value to both practitioner and patient; at least it will save the former from a painful reflection, which he must one day suffer, that he has not used to the best advantage those instruments of acquiring knowledge which were within his reach during his pupillage at a large metropolitan hospital.

I am induced to offer these remarks, from a conviction that the valuable pathological Essays on Diseases of the Heart, by Dr. Latham, published in vol. iii. of Medical Gazette, and Dr. Hope's admirable work, are not duly appreciated and read by the student in medicine. They present to us compositions of the highest character: the one for the discovery of an unerring guide in the diagnosis of acute inflammation of the pericardium, and the great practical lesson to be reaped from it; the other equally valuable for its explanation of the physical signs of the heart's action in health and disease.

In Dr. Latham's fifth essay it is stated, that the most useful accession to diagnosis that auscultation has afforded, exists in the establishment of the fact, that "a morbid sound with the heart's action invariably is present in acute inflammation of the pericardium." I may safely say, that in one hundred cases I have witnessed during the last four years, I have not seen cause to doubt the fact in any; and the truth of it has been pronounced sooner or later by the progressive alteration and subsequent distress in the functions of the heart and lungs, and by dissection.

A case similar to the subjoined was related by Dr. Watson, in his clinical lectures, published last year in the Medical Gazette. The present one is that of a servant, 22 years of age, admitted under Dr. Wilson, October 21, with rheumatism, of a fibrous form, ten days standing. The patient's countenance was profusely perspiring, and her features continually in a "broad grin." Excepting a sense of weight at the epigastrium, she presented no symptoms of internal inconvenience; the pulse was 110; respirations frequently sighing; and on applying the stethoscope over the region of the heart, there was distinctly heard a morbid sound accompanying, both systole and diastole; with the former it was harsh, grating, and close to the ear; with the latter it was a deep churning sound. The systolic rough sound was only heard over the space of a crown-piece, about an inch from the sternum; the diastolic "souffle" was detected in every part of the præcordial region. Previous cases had taught in too melancholy a language the importance of vigilant treatment being instantly adopted; she was accordingly bled to ℥xxxvi., but syncope could not be induced. Hirudines xx. applied to the præcordia, and the following pill every four hours:—

Pil. Hydrarg. gr. iv.; Hydr. Submur. gr. ij.; Opii. Pulv. ¼ gr.

The deep diastolic sound only could be heard after the venesection.

In the evening the two sounds returned as distinctly as before the venesection, but lessened in intensity.

Ung. Hyd. Fort. ʒj. cruribus infricandum nocte maneque. P. Pil.

Oct. 22d.—Was found to have passed a quiet undisturbed night; is perfectly collected, and not complaining of any pain internally; the rheumatic pains better. The sounds are now as loud as yesterday before the depletions, the pulse 100, and the sense of weight at the epigastrium gone.

---

* The name has been sent to us.—Ed. Gaz.

Rep. V.S. ad ℥xviij.; adde Pilulis singulis Antim. Tart. ⅛ gr.

The sounds altered after the venesection as yesterday, but became faintly audible towards the evening.

23d.—She has passed another good night, and the features are assuming a more natural aspect. The systolic *bruit* audible in a slight degree; the "souffle" is very loud.

P. Pil. et Ung. Hyd.

24th.—No effect has hitherto been produced on the gums by the mercury. The first sound is now more allied to a carpenter's plane, and is as it were close to the skin.

28th.—She is now affected by the mercury, and there is purging. The rheumatism is well. She is free from pain, and makes no complaint. Is anxious to leave her bed, but that is not yet permitted. The sounds are strictly the same as on the 23d, but appear to get fainter daily, especially the systolic grating. Is this produced by attrition of lymph exterior to the heart? or is it within the organ?

On the day that the above case was admitted, a post-mortem examination was made of a child 10 years old, who had been confined to her bed sixteen months previously with acute rheumatism, attended with violent delirium. As this latter symptom subsided, the child became greatly distressed in her breathing, and had palpitation of the heart, with some cough. For these she was admitted in the spring of 1833, under Dr. Watson, and quitted the hospital in December last, very little benefitted. The heart's action during the whole period was attended by a loud "churning" noise.

She returned on the 21st of this month, and sought admission into the hospital. In the course of the day, as she was attempting to get from her bed to the chair, she suddenly expired.

The heart was equal in size to that of a full-grown person. Some bands of adhesion were seen between the pericardium and heart, and mamillated points projected from the surfaces of the auricles.—Along the edges of the tricuspid and mitral valves were seen numerous seed-like deposits.

That portion of the internal lining of the left ventricle, before the aortic valves, was thick, and appeared like washed leather for the space of an inch.

This morbid condition of the membrane had so contracted and bound down the aortic valves to it, as to render them perfectly useless. The mitral valve was as thick as a half-crown piece. There was a large portion of the lung in a state of pulmonary apoplexy.

SURGICAL REPORTS

FROM THE

LONDON DISPENSARY.

BY R. R. ROBINSON, ESQ.

Surgeon to that Institution.

CASE I.—*Extensive Malignant Ulceration of the left side of the Face — Enlargement and Induration of the Cervical Glands.*

WILLIAM ELLIOT, æt. 50, admitted April 16th. About four years ago he perceived a small swelling under the lower palpebra of the left eye, like a wart, which increased gradually in size. He went into an hospital, where remedies were used to destroy the surrounding skin: he left it two years ago, since which the disease has considerably extended. The left side of the face is now completely gone; in its room is an ulcer, with healthy granulations, extending from the ear (which is included) down to the symphysis of the inferior maxilla. The edges, however, are hard and puckered; the inferior part of the left orbit is quite destroyed, as are also the left malar and superior maxillary bones, except two small portions which stand out from this immense excavation in a state of necrosis, discharging a healthy-looking but offensive pus, tinged occasionally with blood. The left eye is reduced to a round tense ball, very tender to the touch; the cornea completely opaque. He experiences excruciating pain in the wound, from which saliva is constantly dribbling. The mouth can only be opened to a very small extent, and he has difficulty in swallowing. About the middle of the neck, on the left side, there is a cluster of glands about as large again as a nut, exceedingly hard, and firmly adherent to the skin above, and to the superficial fascia below. Much emaciated; bowels open.

Pulv. Doveri, gr. x. n. et m. Cat. Panis.

July 9th. — Pain most excruciating; cannot obtain rest even with opiates; the remaining portions of the malar and superior maxillary bones have exfoliated and come away entirely; the bones of the orbit are also more exposed and necrosed, but the granulations throughout the whole wound are very healthy; the ulceration extends down the neck. Below the ear there is another indurated gland; those lower in the neck larger and still harder than they were.

Rep. Opium.

August 9th.—The ulceration extended deeper, and his pain continued excruciating, until released by death this day. A slight bleeding occurred now and then, but not to any amount. I had not an opportunity of examining the body.

Remarks.—This case affords a good illustration of the great ravages that may follow a simple pimple of the skin. I believe this disease commenced in the glandular substance of the cutis vera; that it spread by ulceration from one follicle to another, until a considerable extent of skin was implicated; the parts beneath then became affected, the eye was inflamed and destroyed, the bones also of the cheek became involved, and the irritation was propagated to the cervical glands, in consequence of which they became enlarged, adherent, and decidedly scirrhous. The progress of the disease was exceedingly slow, but the pain very severe. No benefit appears to have resulted from escharotics, which were applied at its commencement. The disfigurement of the face was frightful, and such as I never witnessed but in one other case, where both sides of the face were very considerably destroyed, and the mouth and nostrils laid into one large irregular cavity, by an ulceration of similar character. This man appeared to die exhausted by long-continued suffering, though it is not improbable that the ulceration might have extended towards the base of the brain, of which, however, there were no symptoms. I much regret I could not clear up this point by dissection.

Case II.—*Malignant Ulceration of the Mouth —Hydrocephalus*

John Andrews, æt. 65, admitted December 28th. Perceived a small pimple on the inside of the right cheek some time ago, which ulcerated, spread slowly, and was attended with a shooting pain. The ulceration has now extended throughout the interior of this cheek, giving it a puckered, hardened, granular appearance; it is covered at parts by altered cuticle, and discharges an offensive saliva; the ulceration now extends towards the tonsil. For the last three months he has been unable to open his mouth above an inch. The submaxillary gland on this side was much indurated, but has in the last ten days softened; and now there is here an evident abscess, excessively tender to the touch, but which he will not allow to be opened. He can only swallow liquids; is much emaciated; nights generally restless; countenance leaden, almost livid; headache, dyspnœa, and cough, to which he is subject every winter; respiration at parts dull, rhonchus mucosus at others. Pulse regular; bowels open.

Cat. Panis. Ext. Conii, gr. viij.; Cal. gr. j. o. n.

Jan. 6th.—The abscess under the chin broke this morning, and discharged much healthy-looking pus; freer from cough; weaker.

11th.—More pain in the mouth; ulcer extends backwards; bleeds slightly at times; abscess still discharges, though less freely; cough gone.

18th. — Continued much in the same state, and died yesterday.

Dissection.—Dura mater firmly adherent to the arachnoid in the whole course of the longitudinal sinus. Arachnoid and pia mater preternaturally vascular, thickened, and gelatinous. A considerable quantity of serous fluid, tinged with blood, in the ventricles on the surface, and in the base of the skull, amounting altogether to ℥viij. Upper surface of the brain healthy; in the vicinity of the thalami (posteriorly) in a state of ramollissement; the base of the brain and nerves healthy. The ulcer occupied the whole of the right cheek, had destroyed the right palate bone, and part of the right ramus of the inferior maxilla. Towards the pharynx the mucous membrane was of a black colour, to the extent of a shilling, and rather hard. Pharynx itself, as also larynx, healthy.

Cartilages of the ribs ossified. Lungs slightly adherent to the chest; left in a state of engorgement, and easily lacerable, right also engorged. Coronary arteries ossified; mitral valves a little thick, not bony. Slight hypertrophy of the left ventricle; ossific spots in the aorta. Abdominal viscera healthy, with the exception of slight thickening about the pylorus.

Remarks.—The ulceration in this case appears to have been of the same character as in the preceding; it commenced, however, on the inside instead of the outside of the cheek,—in the salivary glands, perhaps,—instead of in the follicles of the cutis vera. As the right palate bone was destroyed by the disease, it is not improbable that the serous effusion within the cranium, the vascularity, thickening, and gelatinous appearance of the arachnoid and pia mater, resulted from propagated irritation, and were consequently secondary to the ulceration of the cheek. It is curious that effusion to the amount of *eight ounces* should have taken place within the cranium, and not have been manifested during life by convulsions, coma, delirium, or any symptoms of cerebral disturbance; which I would explain either by supposing that the fluid was very slowly effused, as in chronic hydrocephalus, or that a great part of the serum exuded from the vessels *in articulo mortis*, or even *post mortem*. The state of the lung appears to have existed during life, and may be accounted for, perhaps, by the irritation evidently going on in the system, and by the congestion which must necessarily have arisen from the thickening of the mitral valves, and other disease of the heart.

ACCOUCHEURS AND NURSES—*POUNDAGE* SYSTEM.

To the Editor of the Medical Gazette.

Sir,

As your pages have ever been open for the exposure of real abuses in the profession, I take the liberty of handing you the following fact. Perhaps you may be as ignorant as I was a short time ago, of a practice pursued by some medical men in the city, which I hope, for the honour of the profession, is not very general—namely, the practice of paying over a portion of the fees received by them as medical attendants at an accouchment to the nurse, which portion receives the name of *poundage*. Now, sir, as it is not common for any one to give up what he is justly entitled to without some return, I fear such conduct will raise a suspicion that the individuals concerned are not the most immaculate. To say the least of it, such a proceeding is highly culpable, as it must injure the respectability of the profession. A farther explanation might be given, but I hope this hint may be sufficient for those pursuing this course, and for preventing others from following their example, as also to remind them, that if they do not respect themselves as they ought, they at least should not lessen the respectability of their brethren in the eyes of the public.

I am, sir,
Your obedient servant,
Edward Duncan.

3, Leadenhall-Street,
Nov. 11, 1834.

OPERATIONS AT GUY'S.

To the Editor of the Medical Gazette.

Sir,

I see in a preceding number of your journal some remarks made on the operating theatre at Guy's Hospital; but as the building of a new theatre would require some little time to accomplish, allow me to throw out a few hints respecting the present. And first, I would say that, generally speaking, there is sufficient room for the average number of students who usually attend, provided they had the full benefit of the places they take; this, however, is far from being the case; for instead of the operating and assistant surgeons and dressers for the week (who certainly are all required in any operation) being within the circle allotted to them, there are besides, visitors, demonstrators, dressers, and ex-dressers, crowding in around the patient; and they, together with those immediately behind, being obliged to reach over to obtain a sight, wholly exclude the benefit of the operation from those pupils who are less fortunately situated. It is but justice to Mr. Browell to say, he has once *spoken* of it, but he will only be *doing* justice to the pupils by enforcing it; although I trust the persons alluded to will absent themselves of their own accord, and thus give the student the advantage of the money paid for witnessing surgical operations, and at the same time prevent those inhuman cries of *heads, heads, dressers' heads*, which every now and then burst forth from every part of the theatre, whilst the patient is writhing beneath the torture of the scalpel. I wish to know my profession, and therefore require the advantages above alluded to.

A Guy's Pupil.

Nov. 10, 1834.

MEMOIR ON THE LYMPHATICS OF THE SKIN, OF THE SEROUS MEMBRANES, AND OF THE NERVOUS AND MUSCULAR TISSUE.

By V. Fohmann,
Professor at the University at Liege.

This author has placed himself in the first rank among the anatomists, by his work on the communication of the lymphatics with the veins, in 1821; his beautiful anatomy of the lymphatics of fishes, in 1825; his work on the lymphatics of the placenta, and umbilical cord, in 1832, and which forms the first part of the present series. M. Fohmann far outstrips his rival, Mascagni, not only in ascertaining the disposal of the lymphatic trunks, but in his search after the distribution of these vessels in the very tissue of organs; which, as Mascagni observes, is the most important point to be sought after.

The ultimate distribution of lymphatics is admitted to vary in each organ; the same observation is to be made on the blood-vessels. M. Fohmann shews that the lymphatics do not arise for the most part by free radicals, but by anastomosing plexuses, deprived of valves, and which are finer and nearer to each other, the closer they are placed to the free surface of the tegumentary, serous, and mucous membranes. There cannot, then, be open orifices at the extremities of vessels; these organic orifices, if they did exist, could only be found in the coats of the vessels.

The first plate of the work represents the lymphatics of the integuments of the chest; the second, those of the scrotum, the skin of the penis, and glans; third, those of the mucous membrane of the œsophagus and stomach; fourth, the lymphatics of the mucous membrane of the ileum; fifth, those of the mucous membrane of the colon; sixth, lymphatics of the mucous membrane of the tongue, larynx, trachea, and bronchi; seventh, those of the urinary bladder and urethra; in the eighth are represented the lymphatics of the serous covering of the heart; in the ninth, those of the pleura covering the diaphragm, and those which form (*gaînes*) meshes around the fibres of this muscle; in the tenth plate are represented the lymphatics of the arachnoid and pia mater: those plates are all very carefully engraved.

This work is additionally useful to anatomists, as it gives the manipulations of those materials by which M. Fohmann has been enabled to make his preparations; and we may be assured of the accuracy of the plates from this circumstance, that M. Lauth has succeeded, by following his directions, in injecting several parts which have afterwards exactly corresponded with the delineations of M. Fohmann.—*Dublin Journal.*

MUNIFICENT DONATION.

A Parisian lady, of distinguished personal and mental accomplishments, died lately, in consequence, it is said, of a shock which preyed on her health for the last two or three months. After bequeathing a number of legacies to various persons, she leaves an annual prize of 5000 fr. to the Academie de Médecine, to be given to the author of the best work on the prevention, alleviation, or cure, of bodily disorders, proceeding from mental anguish. Madame Recamier, who is the executress, had the announcement made to the Academy through M. Bourdois de Lamothe.—*Gazette des Hôpitaux.*

SYMMETRICAL DIVISION OF THE HEART.

M. Cruveilhier lately presented to the Anatomical Society of Paris a heart which he had been able to separate into two symmetrical and equal portions, in the manner which had been previously done with respect to some of the lower animals.

APOTHECARIES' HALL.

LIST OF GENTLEMEN WHO RECEIVED CERTIFICATES ON THURSDAY, NOV. 13, 1834.

Thomas Middleton, Manchester.
William John Harris, Manchester.
Frederick Palmer, Great Yarmouth.
Frederick Yate, Madeley.
Thomas Moore Parke, Askrigg, Yorkshire.
Theodore Dennis, Winchester.
George Seymour Dixon, Wolsingham, Durham.
John Henry Simpson, Loughborough.
Edward Tweddle Atkinson, Richmond, Yorkshire.
William Abraham Cox, Somersetshire.

In the Press.—M. Louis's Work on Phthisis; translated from the French. With Introduction, Notes, and Additions, by Charles Cowan, M.D.E. M.D.P. &c.

WEEKLY ACCOUNT OF BURIALS,

From Bills of Mortality, *Nov.* 11, 1834.

Age and Debility	48	Heart, diseased	1
Apoplexy	5	Hooping-Cough	8
Asthma	10	Inflammation	25
Childbirth	8	Bowels & Stomach	4
Cholera	2	Brain	3
Consumption	69	Lungs and Pleura	11
Convulsions	26	Insanity	2
Croup	1	Jaundice	1
Dentition or Teething	2	Liver, diseased	4
Dropsy	7	Measles	9
Dropsy on the Brain	11	Mortification	2
Dropsy on the Chest	3	Small-Pox	6
Epilepsy	1	Sore Throat and Quinsey	2
Erysipelas	1	Spasms	2
Fever	9		
Fever, Scarlet	17	Stillborn	16
Gout	2		
Hæmorrhage	1		

Decrease of Burials, as compared with the preceding week . . . 22

METEOROLOGICAL JOURNAL.

Kept at Edmonton, *Latitude* 51° 37′ 32″ N.
Longitude 0° 3′ 51″ W. *of Greenwich.*

Nov. 1834.	Thermometer.		Barometer.	
Thursday . 6	from 56	to 61	29 58	to 29·63
Friday . . 7	53	60	29 53	29 64
Saturday . 8	46	54	29 43	Stat.
Sunday . . 9	40	51	29 45	29 55
Monday . . 10	39	47	29 83	29·89
Tuesday . . 12	37	52	29 99	30·09
Wednesday 13	36	47	30 20	30·19

Wind variable, till the morning of the 9th; since, N.E.

The 6th and 7th cloudy, with frequent rain; the 8th cloudy, with intervals of sunshine; rain almost incessant during the 9th, and morning of the 10th; showers at times in the afternoon of the 11th; the 12th generally clear, except the afternoon.

Rain fallen, 1 inch, and ·375 of an inch.

Charles Henry Adams.

Errata.—In Mr. Jones's paper, p. 112, line 10 from the bottom, instead of "set in," *read* "supervened." In Mr. F[illegible]dington's paper, p. 158, line 18, *for* "subsequently," *read* "prior;" and in the same page, line 28, *for* "more," *read* "mere."

W. Wilson, Printer, 57, Skinner-Street, London.

October, 1834.

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THE
LONDON MEDICAL GAZETTE,
BEING A
WEEKLY JOURNAL
OF
Medicine and the Collateral Sciences.

SATURDAY, NOVEMBER 22, 1834.

LECTURES
ON THE
DISEASES OF THE CHEST,
In the course of which the Practice of
PERCUSSION AND AUSCULTATION
IS FULLY EXPLAINED,
Delivered at the London Hospital,
BY THOS. DAVIES, M.D.

LECTURE VIII.

DISEASES OF THE AERIAN PASSAGES.

PITUITOUS CATARRH.

We have occupied so much time in the description of the acute and chronic forms of mucous catarrh, that we shall have less occasion to dwell on the other species, as they all bear a great affinity to each other in their morbid anatomy, signs, and treatment.

You recollect, gentlemen, the difference between mucous and pituitous catarrhs. Mucous catarrh is an inflammation of the aerian mucous membrane, having for its result a secretion of a *yellow* matter; in pituitous catarrh the secretion is *transparent*, *colourless*, and *viscid*. Pituitous catarrh, like the mucous, is divided into acute and chronic varieties, and we shall commence with the acute form.

ACUTE PITUITOUS CATARRH.

Morbid Anatomy. — The aerian mucous membrane is moderately swollen, and frequently somewhat softened; it is rarely extensively reddened, but generally spotted irregularly. You will also find, that, in almost all severe cases, the air-cells of the lungs are more or less infiltrated with serum.

The membrane is in the first instance dry; soon, however, the same sort of acrid, thin, and colourless secretion takes place, as I described in the acute mucous form, and the fluid then becomes bland, viscid, without colour, and transparent; it has a certain degree of tenacity, so that it may be drawn out into long films. The expectorated matter, when collected in quantities, is spumous; and when its surface is removed, the fluid beneath appears like a mixture of white of egg and water. The quantity varies, but it is generally considerable.

Local Signs.—The respiratory murmur is less audible during the accesses of cough than in the intervals between, but it is rarely completely suspended, as in acute mucous catarrh—the sonorous wheezing, sibilation, and the mucous rattle, may all be heard upon an extent of the surface of the chest, proportionate to the bronchial tubes affected. The sibilation is often slight, and seems to be prolonged in the whole of the bronchi: Laennec denominates this the *sub-sibilant respiration.* The respiratory murmur is often louder than natural during the intervals of coughing, so as to be nearly puerile. If the bronchial tubes be dilated, it becomes bronchial; and as the disease is frequently accompanied by serous effusion into the air-cells, the crepitating rhonchus is then distinctly audible, particularly at the parts of the chest corresponding to the lower and posterior portions of the lungs.

Functional and general Signs.—This disease is not uncommon in a moderate form, but there is then always a troublesome cough, occurring in distinct paroxysms; the expectoration is copious, frequently from one to two pints in twenty-four hours; the dyspnœa and oppression are almost always more severe than in the previously described species. But when this catarrh is violent it soon threatens suffocation: it commences with the symptoms of a common cold, and in a very few hours the cough becomes excessive and the expectoration enormous; so that as much as three or four pints have been thrown up in a very short time. The dyspnœa is then extreme, and the patient falls into a state of indescribable anxiety; congestions form, the face becomes livid, the cerebral functions confused, the pulse irregular, and the extremities cold. This affection occasionally attacks infants, and is easily mistaken for croup.

Causes.—The same as those of acute mucous catarrh, but as that species occurs most frequently in bilious temperaments, this happens by far most commonly in those of lymphatic constitutions.

Treatment.—The indications of treatment are the same as in acute mucous catarrh; the same indications and objections to bleeding occur also: emetics are of great use, especially in children, in consequence of the great quantity of viscid filmy secretion which obstructs the bronchial tubes, and which they generally swallow rather than eject by the mouth. Laennec used the tartar emetic in the same manner as I shall describe when we arrive at the treatment of peripneumonia, and with success: he recommends the belladonna and paregorics, to diminish the necessity for respiration. Blisters and mustard cataplasms may be used with great advantage.

CHRONIC PITUITOUS CATARRH.

I cannot do better, in speaking of this disease, than follow the admirable description given of it by Laennec.

Chronic pituitous catarrh, like the chronic mucous, is a frequent infirmity of old age, and especially in those of a lymphatic temperament, previously weakened by excesses, or by too sedentary a life: repeated attacks of acute mucous catarrh evidently predispose to this affection. It has been stated, too, that it is not uncommon in old gouty persons, in whom that disease has lost its regular form and some of its intensity.

Chronic pituitous catarrh is rarely a consequence of the acute species—it commonly follows a succession of attacks of the mucous, or dry. When the expectoration is well established, it becomes almost regularly intermittent; there being usually two attacks of cough and expectoration in twenty-four hours—the one on waking in the morning, the other in the evening, and in some immediately after a meal. The quantity is always considerable. Laennec has seen as much as three pints in each access, the duration of which was not above an hour or two, and it is extraordinary how long patients will continue to expectorate so large a quantity: he speaks of an individual, above seventy years of age, who, for ten or twelve years, had brought up every day, in two paroxysms, about four pints of pituitous fluid. I had a patient at the Lung Infirmary, a young Irishman, who for many months expectorated daily from five to six pints of transparent viscous matter: he ultimately fell a victim to the disease. I suspect that, in these cases, the lungs are always greatly œdematous, for I never meet with them without discovering co-existing crepitation; and in the case I have just mentioned, the whole pulmonary tissue was gorged with colourless serosity.

It is singular that this quantity of expectoration is not incompatible with a certain degree of health, although it continues for years. It is true that after a certain time the patient becomes paler and thinner, but he does not fall into a state of marasmus; he becomes more lymphatic, and the blood, if drawn, shews less consistance; but as old age advances, the accesses of cough are more prolonged and have shorter intervals—the dyspnœa is constant, and he is now called an asthmatic; in fact, it is another form of *humid asthma*: finally œdema of the lungs supervenes, and the catarrh becomes *suffocative*. It occasionally happens that the disease is quicker in its progress, and that the patient falls sooner into a state of great exhaustion and marasmus. It is fortunately uncommon to meet with chronic pituitous catarrh in its exquisite form, although, in a moderate degree, it is by no means infrequent.

Causes.—They are the same as those of chronic mucous catarrh, but, as I have observed before, the disease is most frequent in persons of lymphatic temperaments.

Treatment.—The same mode of treament should be adopted as we have described for chronic mucous catarrh.

WHOOPING COUGH.

We have now to consider a variety of pituitous catarrh, known under the name of *Pertussis* or *Whooping-cough*. I place it as a variety of this affection, because the secretion is of the same character; although there are essential differences, consisting in the spasmodic nature of the cough, in the spasm of the glottis, in its attacking children more particularly, in its contagious nature, and in its occurring but once during life.

Pertussis, or whooping cough, has received a variety of names: it has been called *tussis convulsiva*, *tussis ferina*, *chin-cough*, and *kin-cough*.

Morbid anatomy.—The condition of the mucous membrane has not been much observed, but there is no reason to suppose that it differs from its state in ordinary catarrhs; indeed, I have seen it swollen, and reddened in patches, and the bronchial tubes containing a considerable quantity of spumous secretion. When pertussis terminates fatally, it is usually upon the supervention of peripneumonia or œdema pulmonum: in the first case, the lung will be found to contain sanguinolent serum, and here and there a lobule will be found hepatized; in the second, a large quantity of highly spumous and colourless serosity follows the scalpel upon the section of the pulmonary tissue.

Functional signs.—There is a peculiar cough in this disease, which, when once heard, can never be mistaken for any other: it occurs in paroxysms, and consists of a number of saccaded, sonorous, and precipitated expirations, lasting for some minutes, and leaving the patient hardly a moment to inspire; at last a deep inspiratory movement is effected, attended by a prolonged crowing noise, evidently depending upon a spasmodic contraction of the glottis: it is to this noise the term of whooping is applied; and you will observe, gentlemen, that it always occurs during inspiration. After the first whoop, another succession of similar expirations takes place, followed by another whoop; and the paroxysm will continue in this way for a considerable time, until the little sufferer stamps with impatience: his face swells and becomes livid, especially during the whooping; he grasps a chair or any other firm object for support, inclines his body forwards, and at last the fit terminates in a tolerably copious excretion of pituitous fluid, which hangs in films from his mouth: very often the access ends by vomiting. In almost all ordinary cases the patient will return immediately to his amusements, and be as playful and unconcerned as if nothing had troubled him. These paroxysms may occur many times during the day; they are generally observed to be most violent during the evening, and least so at night; and, as the disease proceeds to a favourable termination, the fits of coughing are usually confined to the morning and evening, then to the evening alone, and at last they totally disappear. Pertussis is most uncertain in its duration; for sometimes it runs its course in two or three weeks, sometimes in seven or eight months.

The dyspnœa is always considerable during the paroxysm of cough, and especially towards its termination, even to impending suffocation. In the intervals there is commonly no difficulty of breathing; and when dyspnœa occurs, you may almost be certain of the co-existence of peripneumonia or œdema of the lungs; in either case the danger is much increased. Two or three winters since, pertussis was extremely fatal in the eastern parts of London, and I then invariably found that its fatality arose from the above combinations.

Local signs.—In the intervals of coughing, the ordinary signs of catarrh present themselves; that is to say, the sound on percussion is good, and the respiratory murmur varies on different points of the chest; at one part it is lost; at another, slight; at a third, puerile; and these parts will alternate with each other in the variation; so that, where the sound is at one time inaudible, it will at another be puerile. The various kinds of wheezing are also heard in pertussis; and if peripneumonia, or œdema pulmonum, be superadded, crepitation becomes always distinct at the inferior lobes of the lungs.

During the paroxysm of cough, a singular phenomenon occurs which never could have been discovered positively, except by auscultation. It might be supposed that the lungs would inflate during the strong inspiratory effort of whooping; but not only is the rima glottidis spasmodically contracted, but it would appear that the bronchial tubes are in the same state, for, during the whooping inspiration, and indeed the whole paroxysm, not the slightest respiratory murmur is to be heard; it only appears when the access has totally ceased.

General signs.—Fever rarely occurs, except with peripneumonic combination. If the disease be much prolonged, and the patient be of a weakly constitution, great debility takes place, with hydropic effusions. In many cases the general health is but little affected.

Causes—Individual.—Pertussis by far most commonly occurs in children; I have, however, seen three or four instances of it in adults: it attacks but once during life.

External.—The common causes of catarrh certainly predispose to whooping-cough, perhaps occasionally produce it; but it most frequently arises from contagion, although Laennec expresses some doubts on that point.

Treatment.—I commence this part of my subject by stating, that there are few diseases more intractable than pertussis. It seems to be an affection that will run a certain course in despite of any means which may be used. Many indications have been pointed out, and many remedies proposed: these remedies, so vaunted, may have been of advantage in some cases, and then it has been inferred they would answer in all; and here let me observe, gentlemen, that we are too much in the habit of generalizing in medicine from isolated facts: the "*Post hoc, ergo propter hoc*" is unfortunately also too common a sophism in medical reasonings. You cannot by possibility be too careful in accumulating a series of facts;—you cannot be too cautious in observing their regularity, and their invariability of succession, so as to determine their relation of cause and effect; and if, by reiterated and scrupulous examination, you are enabled to form a legitimate induction, so as to establish a general principle or quality pervading a whole class of phenomena, you will indeed have made a great advance in your profession.

"So long as there is no dyspnœa or fever, I have but little apprehension of pertussis, but content myself by attending to the general health of the patient, and administering an occasional emetic, by which the viscid phlegm is removed, and perhaps the spasmodic cough somewhat relieved; but I watch closely for dyspnœa, fearing the peripneumonic combination. If that should unfortunately occur, you must be directed by the rules laid down for the treatment of inflammation of the lungs.

When the disease has lasted some weeks, and has become chronic, various means have been proposed—as small doses of opium, or of conium or hyoscyamus, musk, acetate of lead, the recent powder of belladonna, in doses of one eighth to half a grain, or the extract of its root, from the eighth of a grain to a grain: the extract of the narcissus pseudo narcissus has been much extolled, in doses of half a grain to one or two grains every four or six hours: the hydrocyanic acid has been used with varied success: cantharides was formerly a very favourite remedy, particularly when combined with the cinchona: ammonia, æther, and camphor, have all been successively the fashionable remedies.

Various external means have also been employed, as blisters, stimulating embrocations rubbed on the chest and along the spine; but I have so little faith in the use of these, that I shall not fatigue you with their detail, but refer you to the works on medicine for the different formulæ that have been and are still in use.

One of the best remedies is a change of air, although that does not always cure; at least its effects are so slow that it is difficult to attribute the restoration to health to that cause. I had a remarkable proof of this in my own family. Two of my children were seized with pertussis in London; after a fortnight they were removed into Essex, where they remained two months longer with unabated symptoms; I then took them to Paris, and the disease did not finally disappear until they had been there four or five months.

CATARRHUS SICCUS, OR DRY CATARRH.

The generic character of catarrh being an inflammation of the aerian mucous membrane, having for its result a secretion, the expression of catarrhus siccus would seem to imply that it should not be included in that genus; but the term siccus is not to be understood in the positive sense, but in the comparative, since the disease consists also in an inflammation, having for its consequence a secretion, although infinitely less in quantity than in the preceding species.

Morbid anatomy.—The mucous membrane in this affection is of an obscure red or violet colour; it is swollen, and the swelling more particularly takes place in the smaller bronchial tubes, which are sometimes almost entirely closed by it, although occasionally the membrane lining a larger branch will be thickened to the extent of a few lines, whilst in the continuation of that branch, or in its ramifications, it remains in its natural condition. The extent of the inflammation of the membrane is proportionate to the duration of the disease; yet the whole mucous surface has been thus affected in infancy. When the dry catarrh is universal, or even extensive, it always causes emphysema of the lungs.

The secretion in this disease is very different from that of the other species of catarrh: it consists of an extremely viscous matter, formed into globules, of the size of a pin's head, or larger; they are never mixed with air, are semi-transparent, and of a pearly aspect: this appearance is supposed to depend upon the mixture of a small quantity of the black pulmonary matter; a number of little dark spots are also occasionally seen in the globules. This affection is so common, that many persons, who make no complaint whatever, expectorate a small quantity every morning. These secretions have been named by Fourcroy, *bronchial mucus*; by Laennec, from their similarity to pearls, *pearly sputa*, or *sputa margaritacea*, to distinguish them from the mucous and pituitous fluids.

Local signs.—I shall revert to Laennec's work for the description of the signs of this disease, as it is to him we are indebted for their discovery.

The percussion of the chest affords a perfect sound, but the respiratory murmur is lost, or nearly so, at the points corresponding to the bronchial tubes affected. These points vary when the catarrh is general; for often the parts where, on a first examination, the murmur was inaudible, after a short time present it distinctly. These variations depend upon a greater degree of swelling of the membrane at one time than at another, or upon the varying quantities of pearly sputa obstructing the tubes at different periods.

If the engorgement of the smaller bronchial tubes be not carried to its highest degree, the respiratory murmur may still be heard, although very feebly; and at the same points there will be a slight sibilation or clicking, as if of the opening and shutting of a small valve; this last sound is least common, and can scarcely be distinguished, except upon deep inspirations or coughing: it depends upon the displacement of a pearly sputum by the air. It is probable that these noises would be louder were it not for the dilatation of the air-cells (emphysema pulmonum), which so frequently accompanies this disease.

Functional and general signs.—A moderate dry catarrh will often remain latent for years. Persons so affected perceive only that their breathing is not so free as that of others when they mount an elevation, or run; but when the tubes become extensively affected, they breathe with difficulty, even in a state of repose, and particularly after a meal: some persons referring the sensation of obstruction to one side of the chest only. At a later period, the accesses of dyspnœa become so severe as to merit the name of asthma; and it is one of the causes of the disease we shall hereafter describe under the name of *dry asthma.* Towards the end of these attacks, cough comes on, and the dyspnœa and oppression diminish; and in a short time a few pearly sputa are expectorated, often floating in a little pituitous fluid, by which the symptoms are still further diminished. In very slight cases, the sputa lose their globular form and density, become more abundant, and are slightly tinged by an intimate admixture of a little yellow or whitish and opaque mucus; at other times they have the consistence and appearance of the vitreous humor of the eye: the *vitreous pituita* of the ancients.

A similar ejection of phlegm occurs habitually in many persons subject to slight degrees of dry catarrh; and if the secretion be not suspended, they are never subject to dyspnœa or asthma. Often the quantity is so small, that they do not observe themselves to expectorate; in others, there is really no cough or expectoration, or the cough is extremely slight and dry, and occurs but once or twice in the twenty-four hours; and then, especially if it has come on slowly, or has not been preceded by acute catarrh, it has been called a *nervous cough*, or it has been supposed to be sympathetic of some other affection, so that it has been denominated *gastric, hepatic, hysteric*, &c., when, in fact, a local examination of the chest would soon enable us to detect its real cause.

When an acute catarrh is grafted upon the chronic dry form, then the dyspnœa suddenly augments, so as to constitute a fit of asthma; it is relieved by expectoration. Upon a recovery from this state, the habitual dyspnœa is somewhat increased, because the disease has extended further in the course of the bronchial tubes.

It happens occasionally, in nervous persons, particularly in hysterical women, subject to dry catarrh, that a short asthmatic paroxysm will occur upon mental agitation. Thus, I had a patient, who, upon any stranger entering the room, commenced to breathe with great difficulty, and the sibilating wheezing was heard all over the parietes of the chest. After a few minutes, the dyspnœa subsided, and nearly all the sibilation with it.

During sleep, or upon the accidental occurrence of fever, the dyspnœa diminishes, and the instant of waking seems to the patient the only time he breathes freely. Finally, when the disease has lasted a considerable time, emphysema of the lungs and its signs supervene.

Causes.—This is a very frequent disease: persons of all ages and temperaments are subject to it; almost all the inhabitants of maritime and cold countries, or of humid vallies, are constantly attacked by it, although in various degrees; and Laennec asserts that half the inhabitants of the driest parts of France, possessing apparently excellent health, present traces under the stethoscope of some slight bronchial engorgement. From an official situation I hold, I have occasion to examine a number of persons in good health, and there are few indeed who do not present some slight wheezing at one point or other of the chest on a deep inspiration.

Gout, hypochondriasis, certain chronic cutaneous eruptions, are supposed to predispose to this disease.

Dry catarrh is often sympathetic of fever: you generally find the bronchial tubes more or less affected in that class of diseases.

Treatment. — The first indication we should have in view is to diminish the inflammatory action going on in the mucous membrane; but, as in the other forms of catarrh, patients rarely bear general bleeding. If, however, the dyspnœa be great, and the subject plethoric, then bleeding is necessary. I often apply leeches with advantage. Counter-irritants, as blisters, the tartar emetic ointment, Burgundy pitch plaisters, and dry cupping, frequently produce a good effect, although not always a permanent one.

When the cough is violent and distressing, you will find opium produces the most beneficial results, given in doses of a grain, or a grain and a half, at bed-time. Laennec administered it in smaller doses, and repeated them frequently.

Our second indication is to diminish the viscosity of the tenacious phlegm which obstructs the small bronchial tubes. The authors of the humoral pathology imagined that certain medicaments had a solvent effect in these cases. Without reposing any confidence in their hypotheses, I can assert that many of the remedies proposed with that intention do much service. I use frequently the common yellow soap, in doses of from five to ten grains, three times a day. The carbonates of ammonia, soda, and potash, in doses of from ten to thirty-six grains a day, mixed in common drinks, were frequently given by Laennec. The ipecacuanha has a very good effect, if long continued. A grain of the powder may be administered three or four times in the twenty-four hours. I have frequently used mercury in severe cases, and am satisfied that, if carefully managed, so as not to excite salivation, it often diminishes the bronchial tumefaction, and occasions a free and diffluent expectoration.

HYSTERICAL COUGH.

Although I have not classed this affection among the catarrhs, still I have placed the description of it here, as it assimilates more to those disorders than any other.

This disease invariably, as far as my experience extends, attacks young hysterical women I have met with it thirteen or fourteen times, and never in the other sex. It usually occurs before the age of twenty. I have not observed a case beyond the age of twenty-five years. It can hardly be called a cough, it is rather a bark; it is a loud hoarse sound, produced by the act of expiration repeated many times in a minute, for hours, days, weeks; I have seen it continue, with but slight intermissions, for months, the patient having scarcely any relaxation from it but during sleep. The voice is almost always affected; it is generally reduced to a whisper, sometimes to perfect aphonia. A sense of soreness is occasionally complained of about the larynx; the breathing is not always difficult, nor is there always pain or oppression in the chest. The disease is rarely accompanied by expectoration, although in two instances I have seen it combined with pituitous catarrh, and then the quantity of transparent viscous fluid thrown up was considerable; but it was no doubt an accidental coincidence. Sometimes the patients are much distressed and weakened; sometimes they preserve their cheerfulness, appetite, and strength.

I know nothing of the morbid condition of parts in this disease, as I never saw a patient die of it. All I can say is, that there is evidently a spasmodic condition of the respiratory muscles, and of the glottis, depending probably upon some peculiar state of innervation.

Treatment.—This affection seems to be as intractable as pertussis, to which indeed it bears some analogy. I have tried bleeding, blistering, drastic purgatives, iron, and various antispasmodics, and I cannot say with the slightest beneficial effect. Change of air seems to do more for the patient than any thing else, although you must not consider it as a certain remedy. As the disease is somewhat rare, I will relate the following case.

I was called to a young lady of about 20 years of age, of a sanguine lymphatic temperament, and who had been the subject of hysterical fits. I found she had been coughing unceasingly for five or six weeks, having no remission except during sleep. She had totally lost her voice. She did not appear distressed, but smiled, and looked as if she thought her state rather ridiculous than distressing. A variety of means had been used, but inefficaciously. I advised a change of air. She took a coasting voyage, and had hardly got to sea before the barking left her, and her voice returned. She continued this voyage a week, and landing upon some part of the coast, her complaint returned. It diminished, but did not altogether leave her, upon getting to sea again; but on her arrival home she became as bad as ever, and continued so, to the best of my recollection, about two months more, till one morning she suddenly exclaimed, "Mother, I can speak!" From that moment her cough ceased, and her voice returned.

PATHOLOGICAL LECTURES,

Delivered in King's College, London,

BY

PROFESSOR MAYO, F.R.S. &c.

Surgeon to the Middlesex Hospital.

V.—*On Malignant Tumors of Bone.*

It will not be long before this subject will have received the elucidation which its importance merits. The researches of Mr. Kiernan into the nature of scirrhus, medullary sarcoma, and melanosis, which are likely in a short time to be laid before the Royal Society, will enable pathologists to classify and to describe these diseases on scientific principles, and with scientific precision. And the expected work, by Mr. Stanley, on the diseases of the bones, will enrich this department of surgical literature with the full history of many varieties of disease of which the student can at present glean but scattered and imperfect notices. In the meantime, let me state the comparatively rude but practical views which, in common with others, I entertain upon this subject.

By malignant tumors are meant a class of affections, which consist in the abnormal growth of a part through the formation in it of some new element, which has a tendency to indefinite increase,—the increase having no check but in the sloughing or ulceration of the part,—and the disposition to the particular formation being so strong, that it often manifests itself simultaneously in different parts; and often recurs in a part from which the existing disease has once been entirely removed.

Some of the characters, of which the aggregate forms the idea of malignant disease, are separately met with in more than one of the affections, which have been described in my previous lectures.

In persons of the scrofulous diathesis, the tendency to the deposition of tuberculous matter is often manifested at several points of the system at once; and is liable, after the amputation of an affected limb, to develope itself with aggravation in other parts. But in scrofulous disease there is no enlargement of the bone.

In superabundant formation of bone, the tendency to hyperostosis is sometimes, as I have partly exemplified by Mr. Jeff's case, strongly constitutional; the only thing, then, wanted to stamp the complaint as malignant, is the presence of some new substance. No. 533 (dry pathological specimens) in the museum of the College of Surgeons, is a preparation of *ossification of the lungs*, from a person who died through obstructed respiration; the pulmonary symptoms having supervened shortly after the leg had been amputated for a large exostosis of the femur.

Nevertheless, it should be stated *in limine*, as a remarkable point in true malignant diseases in bone, that they have not the malignancy of similar diseases in the soft parts. When a bone attacked with malignant disease is removed, the disease generally does not recur. The same is observed, though less constantly, if in the amputation the section has been made through the sound part of the diseased bone. But, when an amputation is performed for malignant tumor originating in the soft parts, the disease almost certainly reappears.

Malignant tumors of bone are rapid in their growth; the pain which attends them is very variable: it is generally less when the disease originates upon the surface of a bone, than when it commences in the cancelli and has to expand and force open the crust. The countenance in these diseases is commonly pale, and the expression anxious and haggard.

a. *Of Osteo-sarcoma.*—The best way to describe this disease is to call it a cartilaginous exostosis. It consists in a vast growth of substance, nearly resembling cartilage in texture, and originating either upon the surface or in the cancellous texture of a bone.

A boy broke the first phalanx of one of the lesser toes; a tumor gradually formed on it, which, when it had attained to the size of a sphere, an inch and a half in diameter, gave him considerable pain. He came into the Middlesex Hospital to have the toe amputated. A section of the tumor is in the museum of King's College. It had at first, and preserves, the appearance of a solid sphere of cartilage growing out of the cancelli of the broken bone. There were many small irregular oblong cells in the cartilage, which were filled with a reddish fluid, and at parts the cartilage grated when cut.

A lad, eleven years of age, was a patient in the Middlesex Hospital, under my care. About a twelvemonth before, he had been kicked by another boy upon the shin. The swelling, which immediately supervened, did not subside, but gradually a considerable enlargement formed upon the part of the bone which had been struck. At his admission, the boy was suffering considerable pain, owing to a blister which had been applied over the swollen subcutaneous face of the tibia, and had left the skin red, tense, and raw. The blistered surface was carefully healed, when the pain went away; but the swelling continued to increase, and after some weeks presented the appearance of an extensive conical tumor projecting from the spine and inner and outer aspects of the tibia, the base of which was five inches in length. The rapidity of the growth of the tumor, and the absence of pain, led me to conclude that the disease was superficial osteo-sarcoma, of which I became certain, when, upon puncturing it, I felt the lancet cut through cartilaginous substance. A stream of florid blood flowed briskly from the puncture, but it stopped on pressure, and the small wound readily healed. The boy, understanding that amputation of the limb was now proposed, left the hospital, and returned into the country. The surgeon under whose care he fell performed a different operation: he divided the skin, and exposing the tumor, cut it away from the bone. For a short time every thing went on well; but before the wound was healed the tumor reappeared, and grew with great rapidity, and bled. The surgeon then amputated the limb above the knee; and the patient eventually did well. The amputated tibia, after maceration, was sent to me, with a description of the tumor. From the description, I have no doubt that it was a genuine case of osteo-sarcoma. The appearance of the bone agrees with this supposition: the crust is thin, of a lighter structure than healthy bone, irregularly excavated upon its surface, and here and there raised into projecting spines and ridges of light bone, which (I conclude in this case, as it is common in others) formed dendritic ossifications stretching into the cartilaginous growth. There was for some time considerable doubt whether the disease was not returning in the extremity of the divided femur. I believe, however, that it did not. Nevertheless, the temporarily suspicious appearance of the stump suggested to me the advantage, in similar cases, of amputating, if possible, at a joint, to avoid the risk of irritating the structure of another bone (as must happen in sawing its shaft), in a constitution liable to malignant osseous disease.

There are two points which are variable in this disease—the quantity of bone in the structure of the tumor, and the number and extent of the cells. In a specimen of osteo-sarcoma in our museum, of which we have a cast of the entire tumor, and the bone after maceration, the upper part of the femur has thrown out a prodigious mass of thin bony plates, which formed a kind of laminated skeleton to the mass of the osteo-sarcoma.

The largest specimen of osteo-sarcoma which I have seen, was in the head of the tibia. The limb was amputated by Mr. Frogley, of Hounslow. The tumor was spherical, and I think nearly a foot in diameter; it contained a large cavity, the crust formed of the osteo sarcoma being from an inch to two inches in thickness.

An osteo sarcoma grows with great rapidity; its surface is smooth and rounded, and conveys to the touch the idea of its cartilaginous consistence.

There is something in the appearance of osteo-sarcoma, which strongly suggests its affinity to gelatiniform carcinoma.

After the femur and tibia, osteo-sarcoma most frequently attacks the lower or the upper jaw. In either case the disease has been more than once successfully removed by excision either through the sound bone, or at the joint. In the only instance which has fallen under my own care, the disease began in the upper part of the nose, and seemed to be confined to the nasal part of the upper maxillary bone. I removed it; and while the patient continued under my observation, the disease did not recur.

b. Of medullary sarcoma.—It is now about a year since a case of this disease presented itself at the Middlesex Hospital. In the year preceding there were three instances of its occurrence,—two in the head of the tibia, one in the head of the humerus. Amputation was performed in each case, and the patients recovered; and I have not heard that in either a return of the disease has taken place.

One of these cases was under my own care. In the course of a few months a large swelling of the head of the tibia had formed, attended with considerable pain. A surgeon punctured the swelling, and forced out nearly a pound of yellow doughy substance. Upon this the patient was sent into the hospital, and the limb—the nature of the case being obvious,—was immediately amputated. The head of the tibia was found to be expanded into a thin membranous shell, with very little bony matter in its texture, the cavity filled with a yellowish substance, like the medulla of the brain, and clotted blood. The deposit of medullary substance extended to some distance into the cancelli of the shaft of the bone.

In the other case referred to of medullary disease of the head of the tibia (of which, like the former, the preparation is in our museum), the amputation was performed by Sir Charles Bell. The external appearance of the diseased part was remarkable for its tense brawny hardness. The disease appeared to have begun simultaneously in the cancelli, and upon the surface of the bone. The cancelli contained brainlike substance, or true medullary sarcoma. The crust of the bone was thin, and of a light brittle texture. The muscles of the back of the leg were externally healthy; but near the bone, for their proper texture, there was substituted a firm white substance which came near to the description of Mr. Abernethy's mammary sarcoma; while the hard, brawny, lobulated, subcutaneous tissue on the fore part, might well have been termed pancreatic sarcoma.

It would almost seem that the medullary deposit admits in some instances of absorption; or else there are forms of disease, of which the early history is unknown;—for enlargements of the heads of bones are met with, in which the shell, reduced (as in the preceding instances), to a thin and hardly osseous capsule, contains only gelatinous fluid, intersected with more or fewer membranous septa.

In a remarkable specimen given to us by Mr. Stanley (a section of medullary sarcoma of the femur, amputated by Mr. Earle), there is seen medullary sarcoma that had originated in the cancelli of the bone, and had caused absorption of the crust of the femur, which, when extenuated, had broken. The fracture is surrounded by a large soft tumor; part of this tumor is medullary, part of a firm, white, opaque, fibrous substance, not cartilaginous.

This white, opaque, fibrous substance, may of itself, I believe, constitute a malignant periosteal growth.

In the preceding case it was combined with medullary sarcoma. In another preparation in our museum, for which the leg was amputated by Mr. Green, medullary sarcoma was found in combination with osteo-sarcoma.

The malignant diseases do not attack the round bones. After the large cylindrical bones, especially the tibia, femur, and humerus, the upper and lower jawbones seem their most frequent seat.

There is an excellent case related in the 120th number of the Edinburgh Medical and Surgical Journal, illustrating at once the connexion between osteo-sarcoma and medullary sarcoma of bone, and a remarkable feature, which is occasionally developed in the latter disease—a pulsation, namely, as if the tumor were aneurismal. The pulsation is probably communicated from the contiguous arterial trunk.

The patient was a Rosshire farmer, æt. 68. A month after suffering rheumatism of the shoulder, he fell and bruised the part: some swelling ensued, which never disappeared, but in ten months had greatly increased. A pulsation was now first noticed in the tumor; then more rapid growth, and corresponding increase of pain. The skin was not discoloured; the tumor was elastic, but firm; pressure caused little uneasiness, but motion of the arm gave considerable pain. When the tumor was embraced by the hand in all directions, there was a strong pulsation—a distinct feeling of distention—the hand being visibly elevated. This sensation and appearance were much stronger at the more prominent part, over and in the axilla. The humeral artery was distinctly felt high up, but in the axilla the pulsation was suddenly lost, as if in the tumor. To the feel, the pulsation was sawing and peculiar. The operation of tying the subclavian artery was performed on the 17th January; on the 7th February sudden hæmorrhage supervened: death on the 10th.

Upon making a section of the tumor, which consisted of an enlargement of the upper part of the humerus, there was found a conglomerate mass of medullary matter, irregularly intersected with ligamento-cartilaginous bands, and having intermediate cavities throughout, of a dirty-brown colour, which seemed to have been recently emptied of blood. The bone in its whole diameter, for three inches downwards, had entirely disappeared. A very few spicula were felt by the knife on making the section; these, however, were not visible to the eye, and a thin shell of the head, corresponding to the articular surface, only remained. On disarticulation its surface was sound, as was also the scapular cavity, although the ligamentous structures were much thickened.

c.—Melanosis in bone is of rare occurrence. Mr. Kiernan told me he had once met with it, in conjunction with melanotic disease of other organs.

d.—True scirrhus in bone I suppose to be of rare occurrence. I have mentioned that we have a specimen which looks like a scirrhbus tumor, in the medullary cavity of the femur of a person labouring under cancer: and there are in London several other preparations of a similar description. But I am not acquainted with an instance of an undoubted scirrhous *enlargement* of bone.

Mr. Sweatman has a remarkable specimen of scirrhous periosteum. A woman, about seventy years of age, in the cancer ward of the Middlesex Hospital, had carcinoma of the breast. About a month before she died, one eye was observed to protrude, and three days before her death she became suddenly comatose. Upon examining the skull, the dura mater and pericranium, and orbital periosteum, for a considerable extent on the affected side of the head, were found to be thickened and hard: the dura mater was, at one part, a third of an inch in thickness; the arachnoid adhered to it, and partook in the same thickening. The bone is not diseased, but is something more vascular than usual.

In the museum of the College of Surgeons there are several specimens of thickening of the pericranium and dura mater. No. 607 is a section of the right temporal and parietal bones of a young woman, twenty five years of age. A tumor projects externally, about half an inch above the surface of the parietal bone, and there is a similar tumor situated exactly opposite, on the inside of the skull. These tumors appear, in the preparation in spirits, not unlike that just described, except that the part towards the skull appears opaker than the rest. The opposite section, however, is preserved dried; and the opaker part is thus shewn to consist of short bony threads, in close apposition, which have no continuity with the cranial bones, on which they rest, but must have formed within the tumor. The tumor, I suppose, was malignant. The intervening portion of the cranium is sound, but unusually vascular.

I may add to this lecture, to complete my sketch of the pathology of bone, two points to which I have not yet adverted: one relating to the absorption, the other to the abnormal increase of bone.

1. Bone may be partially absorbed without either atrophy, or inflammation, or caries. Certain kinds of pressure produce this effect. The pulsation of the blood in an aneurism against the ribs, or the sternum, or the vertebræ, causes the gradual removal of the part of the bone on which it tells; but the surface left is not diseased; the aneurismal sac has a kind of adhesion to it.

2. Abnormal growth of a bone may be produced (in addition to the causes before specified) by the formation of hydatids within the cancelli. An interesting case of a bony tumor which contained a considerable number of hydatids, is related by Mr. Keate. The tumor was situated between the two tables of the frontal bone of a female, who was about eighteen years of age. Two operations were performed to remove the tumor, an interval of two years and nine months having taken place between them. During this time, various caustic applications (among which were arsenical preparations and actual cauteries) had been used, but in vain, to destroy the surface from which the hydatids seem to form. On the second operation, in the very hard and compact bony substance which formed the base of the tumor, were found five or six cells, containing hydatid cysts; and these were carefully removed. Sulphate of copper and nitrate of silver were occasionally applied to the whole of the denuded surface, and from time to time produced exfoliations of the bone. In eight months after the second operation the wound healed, and the patient enjoyed perfect health.

PRACTICAL OBSERVATIONS IN MIDWIFERY.

By Wm. F. Montgomery, A.M. M.D.

Professor of Midwifery to the King and Queen's College of Physicians in Ireland, and Accoucheur to Sir P. Dun's Hospital.

On Transverse Malposition of the Head, as a Cause of Difficult Labour.

In a former communication in the Dublin Journal*, I insisted strongly on the indispensible necessity for a complete and intimate acquaintance, on the part of the accoucheur, with the mechanism of labour, and especially with the exact relations which the different parts of the child's head observe with those of the pelvis, during the progress of a natural labour: by the accuracy of which knowledge alone, and our readiness in applying it in practice, can we hope either to understand the actual condition of any case under our care, or be able to rectify deviations, or remove difficulties, by means at once easy, safe, and effectual, instead of being compelled to resort to the use of instruments, the application of which, however skilfully managed, must always expose both mother and child to a certain degree of danger, and too frequently gives rise to injuries of a very deplorable kind. If it were necessary by facts to confirm a proposition so undeniable, I could scarcely adduce any which would, in my opinion, more powerfully support its truth, or illustrate the advantages derivable from its adoption, than those on which I now propose to offer a few observations.

I presume I may take for granted, that every one engaged in midwifery practice, has from time to time met with cases in which, while every thing seemed favourably circumstanced, and the labour was apparently proceeding expeditiously to its termination, the head has become suddenly stationary in the cavity of the pelvis, and there remained for many hours, or perhaps until a necessity has arisen for adopting instant means of delivery; and this too when there really existed no deficiency of space to prevent its free passage. The occasional cause of this species of arrest, I believe to be not at all generally understood, which I shall now endeavour to elucidate, by a description of a particular kind of displacement to which I have been in the habit, in my lectures, of applying the name of *transverse malposition*; and by the detail of one or two cases, in which its detection afforded an opportunity of giving instant and complete relief, and happily terminating a severe and protracted state of suffering.

I may just premise, that in the most perfectly natural labour, the head enters the pelvis with its longer axis in coincidence with one of the oblique diameters of that cavity, and with the chin pressed up close upon the chest, until the vertex has descended so low as to press upon the soft parts forming the floor of the pelvis; the occiput then begins to advance towards the arch of the pubis, and the face retreats towards the hollow of the sacrum; next the chin recedes from the chest, and the occiput issuing from under the pubis, the head escapes by revolving, as it were, on a pivot under the anterior wall of the pelvis, so that in this way the head passes through the bony and unyielding chamber of the pelvis, in such a position, that it occupies the least possible dimensions, and the departure of the chin from the chest, which immediately requires greater accommodation, does not take place until the occiput having cleared the confines of the pelvis, has unlimited space to allow of its escape. But occasionally this felicitous arrangement is disturbed, and complete arrest of the head produced by the deviation, which occurs thus: the head having entered the cavity of the pelvis in the position already described, the occiput, instead of moving forwards towards the pubis, recedes towards the spinous process of the ischium, and the face, instead of retreating towards the sacrum, falls into the space between the opposite spinous process of the ischium and its tuberosity; and the chin having receded from the chest, the head is placed, with respect to the outlet, in the most unfavourable manner possible, since it presents to it the greatest possible dimensions which it is capable of assuming, its longest diameter resting its extremities on the opposite tuberosities of the ischia, while at the same time the parietal bone rests on the lower part of the sacrum and coccyx, so that the head is in the condition of a ball supported on three nearly equi-distant, solid, and immoveable points; under which circumstances the action of the uterus, however vigorous, seems totally incapable of either changing the relations thus established, or of effecting the delivery, while they continue as they are. On examining, the finger will pass readily between the head and the pubis, and also posteriorly, except at the point of the sacrum; but there, and opposite the tuberosities of the ischia, the head is felt to be closely locked; the anterior fontanelle is found to be in the centre of the presentation, and the sagittal suture can be traced exactly across the outlet from side to side. How completely and how long this malposition will resist the most powerful action of the uterus, and how easily it may be rectified, will appear sufficiently from the subjoined cases; from which also it will be seen, that this difficulty, (occurring as it does at a time when, from the advanced position of the head, and the state of the perineum and other soft parts, delivery is momentarily expected) is likely to be productive of extreme embarrassment to the attendant, the more especially as the previous birth of full grown children, or even the circumstances of the case, may of themselves afford proof, that there is no natural deficiency of space, since the head may without difficulty be raised from its situation, to which, however, it immediately returns, and will there remain until the necessary rectification is effected, which should be done in the following manner. Apply two fingers along the junction of the parietal and frontal bones anteriorly; then, in the absence of pain, press up the forehead, and push it backwards towards the sacrum, and there retain it till the access of the next pain, which will in general complete the rectification, and the delivery is speedily accomplished, at least it so happened in the instances which came under my observation. It is scarcely necessary to add, that if, during the descent of the head, a tendency to this malposition be observed, we should at once endeavour to prevent its occurrence, by adopting the means already pointed out as suited for its correction when established; and this I have succeeded in effecting in a few instances.

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* Number xiii. p. 52, et seq.

Case I.—On Wednesday, July 15, 1829, I was requested to see a patient with the late Mr. Gregory and Dr. Carter; labour had commenced on the previous Monday evening, and proceeded actively on Tuesday; by six o'clock, P.M., the perineum was distended, and the head apparently on the point of being born: in this situation, however, it remained at nine o'clock, A.M. of Wednesday, when I saw her; although the uterus had continued to act most energetically the whole of the intervening time, and the soft parts were perfectly relaxed. It was the patient's second labour; she was young, healthy, and well-formed, and had about eighteen months before borne her first child, which was full-sized, after an easy labour of about five or six hours, so that deficiency of space was not probable. On examination I found the head pressing on the perineum; I could pass my finger quite easily between it and the symphysis pubis, but at the sides there was no room at all: the anterior fontanelle was in the centre of the passage, the sagittal suture coinciding with the transverse diameter of the outlet, and the occiput turned to the left ischium: the uterus was acting violently, but produced no other effect upon the head than that of pressing it a little downwards during each pain, on the cessation of which it immediately resumed its original situation. Under these circumstances, I proposed manual rectification of the displacement evidently existing; and having applied my fingers, as already described, along the side of the forehead, I raised and pushed it backwards, towards the right sacro-iliac symphysis, in the interval between two contractions of the uterus; I there retained it, and on the accession of the next pain I repeated the pressure backwards, when the forehead immediately glided to its proper place, at the same time the vertex moved forwards to the arch of the pubis, and *in about two minutes* the delivery was completed by the birth of a fine healthy child.

Case II.—On the 14th of January, 1834, while lecturing at Sir Patrick Dun's Hospital, I received an urgent message from Mr. Dunlop, requesting my assistance in a case of obstructed labour, which he had been called to see, and in which, from the extreme violence of the uterine action, he apprehended rupture of the uterus, if the head was not speedily extricated: it was the woman's fifth labour, the four former having been short, and in every respect favourable. In the present instance, symptoms of labour had come on the evening before, the pains had continued gentle through the night, but towards morning they became more active, and at half-past seven o'clock the head was pressing upon the perineum to such a degree that its exit was momentarily expected; but there it remained, without any further advance, when I arrived at half-past eleven, although the uterus had been, during the whole of the intervening four hours, acting incessantly, and so powerfully that its rupture was with great reason apprehended. On examination, I found the perineum and soft parts protruded by the head; they were unusually relaxed and yielding; the head lay across the outlet of the pelvis, with the occiput resting against the tuberosity of the *right* ischium, and the forehead against the left, having probably descended in the second position; there was abundance of space between it and the pubis, *and it could be easily raised into the cavity of the pelvis*, but the next pain instantly forced it back to its resting-place, and when there, the uterine action, although so strong, had no further effect on it whatever. I immediately adopted the same mode of rectification as in the former case, by elevating the forehead and pushing it round towards the sacrum, when it almost instantly assumed its proper relations under the influence of a pain, *and the very next contraction of the uterus expelled it*; the body immediately followed, and the delivery was completed in *less than two minutes* from the time of effecting the change of position in the head. The child was alive and vigorous. I was fortunate enough in this case to have the valuable assistance of my friend, Dr. Darley, who happened to be with me when I was sent for.

With reference to these cases, it is to be observed, that the subjects of them were women who had already borne children without any difficulty, and that there was evidence at the time, from the circumstances of their cases, that there was abundance of space, as the event fully proved; and yet the obstacle created merely by this kind of malposition of the head was such as to resist, in the one instance for *fifteen hours*, and in the other for *four*, action of the uterus, so powerful that it effected the delivery almost the very instant that the displacement was corrected.

As to the cause of this malposition, I am not prepared to offer any satisfactory explanation, nor is it, as far as I can see, a matter of the least consequence. The idea of Levret, that such misplacements of the head were caused by the situation of the placenta, is so unsupported by either facts or reasoning, and is indeed so fantastic, that I think we may dismiss it at once without further consideration. Neither is the hypothesis, which would explain them by obliquity either of situation or action of the uterus, in any degree more satisfactory. Rœderer ascribes some such deviations to misdirection of the shoulders, which he supposes in such cases to be placed across the smaller diameter of the brim; that this may be so occasionally is not improbable, but in the particular species under consideration, I think it certainly is not the case, because we can so completely correct it, merely by changing, and slightly too, the position of the head without moving the child's body at all. One thing, however, is certain—that when the malposition has taken place, the chin of the child has receded from the chest, and the forehead has sunk as low as the occiput, and that its re-elevation is essential to the rectification, and must be accomplished before delivery will take place; for while the transverse position continues, the natural efforts will not be sufficient, the forceps will not answer our purpose, and turning is out of the question; so that if the real nature of the case be not recognized, recourse will be almost certainly had to the appalling operation of cephalotomy, and a human life unnecessarily sacrificed. It seems very reasonable to suppose that an unusual projection or curvature of the spinous process of the ischium might have the effect of producing this accident, because, under such circumstances, the forehead being prevented from gliding backwards, and being still acted on by the uterine contractions, would almost of necessity be forced downwards into the situation where we find it in such cases, and the occiput would, of course, assume the corresponding situation at the opposite side of the outlet.*

OBSERVATIONS ON INTERMITTENT FEVER.

To the Editor of the Medical Gazette.

SIR,

THE following observations would have reached you long ere now, had not an unexpected call withdrawn me from home. Should you now deem them worthy of a place in your Gazette, their insertion will oblige

Your obedient servant,
AL. PATERSON.

Maçero, Brazil, Oct. 1, 1834.

Of forty-one cases of intermittent fever which occurred on board the H. C. ship Barrosa, in the years 1832-33, three took place from seventy to eighty-three days after leaving England; thirty-one while lying at Whampoa; and seven from two to three months after our departure from Canton, and ninety-three days after ague had ceased to manifest itself in the ship.

Whampoa being a situation peculiarly adapted for the production of marsh miasms, we may reasonably infer that it was the principal cause of the agues which there prevailed, but it contributed nothing to the production of those which occurred at sea, since these did not show themselves until the vessel was widely distant from all miasmatic influence. I stop not, at present, to inquire into the probable origin of these latter cases, but hasten to remark, that they were in no way connected with organic affections, and that they demonstrate the truth of the generally received doctrine, that "febrile miasm arising from marsh lands is the most common cause of intermittents, but by no means the only external agency capable of producing them."

It has been the practice of many to prescribe a great number of medicines in the paroxysm of intermittents, more with a view to alleviate the febrile attack than to prevent its recurrence. But since a return of the fit may, in most cases, be prevented by proper treatment during the intermission, and since the medicines serviceable in one stage of the paroxysm are generally injurious in the others, often exerting a noxious influence on the whole course of the disease, medical operations ought to be confined to the season of intermission, except where the unusual severity of any particular symptom demands immediate interference. The high authority under which "bleeding in the cold stage" has been introduced to the notice of the profession, may appear to exempt it from this remark. As far as my own experience enables me to judge, I must say, that it has always appeared to lengthen the convalescence, without producing any decided benefit, except where the disease was accompanied by organic affections, when bleeding will be equally efficacious, and more conveniently performed, at another period.

The intermission being, then, the most important season for medical interference, I pass on to detail the comparative advantages of a few of the remedies then generally used. The most valuable of these is the sulphate of quinine, ten grains of which are to be taken every three hours during the intermission of a quotidian. In tertians the dose should be diminished, and the interval increased, to five grains every six hours. In quartans the interval may be still longer. When a recurrence of the fit has been prevented, it will be sufficient to take five grains twice a day during the first week, and once a day during the second, in order to guard against a relapse.

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* From the Dublin Journal.

The remedial power of quinine is much greater when administered in this manner, than when one or two large doses are taken a little before the expected paroxysm; for although, these subdue the disease, the convalescence is commonly protracted by vertigo, disorder of the digestive organs, and irregular action of the sanguiferous system—effects often produced by dietetic irregularities, and more frequently by the common practice of administering this remedy in conjunction with wine or spirits—a practice founded upon an erroneous pathology, and deserving of the severest reprobation. It is also not unimportant to remark, that when quinine has been properly administered, and attention given to regimen, cathartics are rarely proper, as they tend to interfere with its action, and to debilitate the patient. The white and furred tongue so common in this class of diseases, being indicative of nervous irritation, does by no means authorise the use of purgatives.

In thirty-two cases in which I prescribed the quinine as above, a second febrile attack was prevented, except in two, and these were complicated with disease of the liver and enlargement of the spleen. In three cases, ♏xx of the liquor arsenicalis, and in two, ♏x. were administered at the same periods as the quinine. In three of these the paroxysm recurred thrice; in one, four times; in the fifth, irritability of the stomach and bowels forbade a continuance of the remedy. Two drachms of bark were, after a like manner, given to four patients, of whom two had a second, and two a third febrile attack. In all these cases the debility was greater, and the convalescence much more protracted, than when quinine was used; and it did not appear that any one of the remedies exerted a greater power than the others in fortifying the constitution against a relapse.

I may add, as I close this short paper,—the practical inferences from which are sufficiently obvious,—that since my arrival in Brazil, daily experience convinces me that the above cases exhibit a result which may ordinarily be expected.

CASE OF CONGENITAL MALFORMATION.

To the Editor of the Medical Gazette.

Sir,

An unusual example of congenital malformation having lately come within my observation, I beg leave to forward a brief account of it for the columns of your journal.

Mrs. R. æt. 25, the mother of three children, was taken with her fourth labour, after a gestation (according to her own account) of forty-three weeks. Mr. Holroyde, of this town, was summoned to her aid, and in the course of a couple of hours she was delivered of a small but well-formed female child, to whom attention was soon particularly drawn, from the continued gasping character of its respiration, and the circumstance of the heart's pulsation, instead of being felt at the usual site, being observable at the right side of the chest.

After living upwards of an hour, although every appropriate means were used, the child ceased to breathe. On the following day an inspection was made by Mr. Holroyde, in the presence of Mr. W. B. Stott, two medical pupils, and the present writer, when the following appearances presented themselves.

The heart (the pericardial envelope of which was more vascular than usual) was observed lying on the right side, between the fifth and sixth ribs, and compressing the three pulmonary lobes, which, upon examination, were found to be extremely small, and partially inflated, but apparently quite healthy. The same side of the chest contained about two ounces of serous fluid. The left cavity of the thorax was occupied by its two pulmonary lobes (small and dark coloured), the smaller lobe of the liver, the stomach, the spleen, the whole of the small intestines, and a great part of the larger ones.

In the abdomen, the right lobe of the liver (somewhat darker than I have generally seen it in new-born children) and the descending portion of the colon, apparently enlarged, presented themselves.

Upon proceeding to more minute examination, we found the *left wall of the diaphragm, posteriorly, entirely wanting;* not that the muscle presented an aperture admitting hernial protrusion, but was (that portion of it) congenitally absent. Hence the position of parts; hence the mechanical obstruction to respiration; and hence the subsequent death of the child.

The kidneys, bladder, uterus, &c. it is scarcely necessary to add, were healthy, and *in situ*.—I am, sir,

Your obedient servant,
JOHN ALEXANDER, M.D.
One of the Medical Officers to the General Dispensary for Children, Manchester.

November 16, 1834.

ON

BELLINGERI'S CLAIMS AS A PHYSIOLOGIST.

To the Editor of the Medical Gazette.

SIR,

THE musical world expressed great delight at Paganini's reiterated performance upon one string. The physiological world has been now for a long period amused,—to tiring, I am afraid,—with a parallel display. What the fourth chord of the fiddle was to Paganini, the "uses of the nerves" have been to more than one physiological performer.

Of those who have harped upon this string, Sir Charles Bell has produced the grandest composition: he has sounded every note, from the octave of the cerebral nerves to the cauda equina. Unfortunately, however, for his permanent fame, his best parts are the appropriated thoughts of others, which gives a sort of falsetto quality to his performance, that captivates the vulgar, but displeases a correct ear.

My own composition upon this string is in three parts. The first is the restoration of the true and original movement of Sir Charles Bell, beginning with the murmurs of the respiratory system, throwing instinctive expression upon the seventh, and playing a voluntary with feeling upon the fifth—the voluntary and the feeling being repeated on the anterior roots of the spinal nerves, and sympathy and the modulation of vegetable life (or the organ stop) being exemplified in the posterior roots. The second (to leave jesting), is the vindication of my own discovery—that the facial branches of the fifth minister exclusively to sensation, and that the portio dura is the source of every mode of muscular action observed in the face, whether instinctive or deliberate*. The third is the rendering to Magendie the credit, to which he is entitled, for having first experimentally proved that the anterior roots of the spinal nerves are for motion, the posterior for sensation.

The Edinburgh Medical Review has recently advocated the claims of another. A very able writer in that excellent journal, after giving deserved praise to Bellingeri's anatomical inquiries respecting the nerves, has asserted that *he* was likewise the first to make out their physiology. I find, however, upon a careful examination of Bellingeri's thesis, that this opinion is incorrect. Bellingeri's views of the functions of the nervous system were ingenious, but, like Sir Charles Bell's, erroneous. Bellingeri attributed to the facial branches of the fifth both sense and motion, like Sir Charles Bell; but, in addition, he attributed ***both the same endowments*** to the seventh; drawing very curious but false distinctions between the supposed endowments of the two. Of the spinal nerves, Bellingeri considered the anterior roots to be the source of *flexion*, the posterior roots, of *sensation* and *extension* jointly. I have subjoined, in reference to the cerebral nerves, the extracts from Bellingeri necessary to prove the correctness of my statement.—I remain, sir,

Your obedient servant,
HERBERT MAYO.

19, George-Street, Hanover-Square.
November 18, 1834.

Selecta e "Caroli Francisci Bellingeri Dissertatione Inaugurali," 1818.

"Partium vero, in quibus inseritur, vitæ organicæ præprimis conferre par quintum nobis ratio suadere videtur."—P. 121.

"Si igitur ubi solæ sunt quinti paris ramificationes, uti in ramo lacrymali, nasali, dentalibus et palatinis, ibi sola est organica vita, nonne probabile redditur, quum in musculis et integumentis fron[illegible]s, labiorum, nasi, et oris, universæque faciei distribuitur, ipsorum tantum vitæ organicæ famulari; animalem vero vitam, motum scilicet voluntarium, et sensum animalem ab adjunctis nervis pendere."

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* *Vide* my Anatomical Commentaries, and Outlines of Physiology.

"Certe involuntarius iridis motus, involuntarius quoque musculorum internæ auris, regitur a quinto."

"Igitur et voluntarium musculorum faciei motum, et animalem sensum tactus a septimo pendere, consonum rationi videtur."

"Animi pathemata præprimis per ramificationes quinti paris mire in faciem depinguntur."—P. 123.

"Jamvero ad maxillarem inferiorem gradum facimus, quem vidimus in anatome ramos tribuere musculo mylohyoideo, ventri anteriori digastrici, omnibusque musculis in mento ipsiusque viciniis existentibus. Aperit inde maxillam inferiorem, et concurrit ad oris occlusionem, et diductionem; famulatur quapropter alimentorum sumptioni, masticationi, atque deglutitioni."—P. 156.

"Quintum denique par omnes hosce involuntarios motus absolvere, comprobat observatio monstri a Laurence descripti, in quo deficiente septimo pare, et presente quinto, ciborum assumptio, succus, masticatio, et deglutitio perfecta est."—P. 158.

CHARTER
OF THE
ROYAL MEDICAL & CHIRURGICAL SOCIETY OF LONDON.

[Several correspondents having begged for further information regarding the incorporation of the Medico-Chirurgical Society, we have thought the best plan would be to insert a copy of the Charter.]

William the Fourth, by the Grace of God of the United Kingdom of Great Britain and Ireland King, Defender of the Faith—To all to whom these presents shall come, Greeting:

Whereas John Elliotson, Doctor of Physic, Sir Astley Paston Cooper, Baronet, and John Yelloly, Doctor of Physic, have, by their petition humbly represented unto us that a Society was formed in the year one thousand eight hundred and five by a considerable number of physicians and surgeons of eminence in London, for the cultivation and promotion of physic and surgery, and of the branches of science connected with them, of which the last two named of the petitioners were original members; and that the said Society has expended considerable sums of money in the purchase and collection of a large and valuable Library, and has published eighteen volumes of Transactions which have had a very extensive circulation. And whereas they the said petitioners have humbly besought us that we should give to them and to the other persons who have already become members of the said Society, or who may at any time hereafter become members thereof, our royal charter of incorporation for imparting greater stability and effect to the designs of the said Society. Now know ye, that we, being desirous of encouraging a design so laudable, have of our special grace, certain knowledge and mere motion, willed, granted and ordained, and do by these presents for us, our heirs and successors, will, grant and ordain that the said John Elliotson, Sir Astley Paston Cooper, and John Yelloly, and such others of our loving subjects as are now members of the said Society, or who shall at any time hereafter become members thereof, according to such bye-laws as shall hereafter be framed or enacted, shall by virtue of these presents be called Fellows of the said Society, and shall be one body politic and corporate, by the name of *The Royal Medical and Chirurgical Society of London*; of which Society we do hereby declare ourselves and successors if they shall think fit, the Patron, by which name they shall have perpetual succession, and a common seal with full power to alter, vary, break and renew the same at their discretion, and by the same name to sue and be sued, to implead and be impleaded, to answer and be answered unto, in every court of us, our heirs and successors, and be for ever able and capable in the law to purchase, receive, hold, possess and enjoy to them and their successors any goods and chattels whatsoever, and also be able and capable in the law (notwithstanding the statutes of mortmain) to take, purchase, hold and enjoy to them and their successors any lands, tenements or hereditaments whatsoever, the yearly value of which shall not exceed in the whole the sum of two thousand pounds, computing the same respectively at the rack rent which might have been had or gotten for the same respectively at the time of the purchase or acquisition thereof; and shall have full power and authority to sell, alien, charge or otherwise dispose of any real or personal property so to be by them acquired as aforesaid, and to act and do in all things relating to the said corporation in as ample manner and form as any other our liege subjects, being persons able and capable in the law, or any other body politic and corporate in our said United Kingdom of Great Britain, may or can act or do.

And we do further declare and grant that for the better government of the said Society and for the better management of the concerns thereof, there shall be, from the date of these presents thenceforth and for ever, a President of the said Society, who with twenty Fellows to be elected in manner hereinafter mentioned shall form the Council. And we do hereby appoint the said John Elliotson the first President of the said Society, and the said Sir Astley Paston Cooper and John Yelloly the first members of the Council, to continue in office till the first day of March next. And we further direct that within four months from the date of these letters patent, a general meeting of the Fellows of the said Society shall be held, who shall be authorized by method of ballot to elect eighteen fit and proper persons as officers and other members of the Council, to complete the number of twenty one, of whom including the President we have willed that the Council shall be composed, and that such additional persons shall likewise continue in office till the first day of March next, and till other fit and proper persons be chosen in their room.

And our further will and pleasure is, that the Fellows of the said Society shall and may on the first day of March one thousand eight hundred and thirty-five, and also shall and may on the first day of March in every succeeding year, or as near the same as conveniently may be, assemble together at the then last or other usual place of meeting of the said Society, and proceed by method of ballot to nominate and appoint a President of the said Society, and such officers and other members of the Council as may with the President form the number of twenty-one, of whom we have willed that the Council shall consist; and also may in case of the death, resignation or removal of the President or any officer or other member of the Council within the space of three months next after such death, resignation or removal, elect some other person being a Fellow of the said Society to supply the place of such President or officer or other member of the Council. And our further will and pleasure is, that no Fellow who has filled the office of President for two successive years shall be again eligible to the same situation until the expiration of one year from the termination of his office, and that not more than two-thirds of the Fellows who have formed the Council of the preceding year shall be re-elected members of the Council at such annual meeting. And we do further grant and declare that the Fellows of the said Society or any ten or more of them shall and may have power from time to time at the meetings of the said Society to be held at the usual place of meeting of the said Society, or at such place as shall have in that behalf been appointed, by and with the consent of not less than four-fifths of the Fellows present, to elect such persons to be Fellows of the said Society, and all Fellows to remove from the said Society, as they shall think fit; and that the Council hereby directed to be appointed and the Council of the said Society for the time being or any three or more of them, all the members thereof having been first duly summoned to attend the meetings thereof, shall and may have power according to the best of their judgment and discretion to make and establish such bye laws as they shall deem proper and necessary for regulating the affairs of the said Society, and also the number and description of its officers, and also the times, place and manner of electing and removing the Fellows of the said Society, and all such subordinate servants, officers and attendants as shall be deemed necessary or useful for the said Society, and also for filling up from time to time any vacancies which may happen by death, resignation, removal or otherwise in any of the officers or appointments constituted or established for the execution of the business and concerns of the said Society, and for regulating and ascertaining the qualifications of persons to become Fellows of the said Society respectively, and also the sum and sums of money to be paid by them respectively or any of them, whether upon admission or otherwise, towards carrying on the purposes of the said Society, and also the number, qualifications and privileges of such persons as they may from time to time deem it proper to admit as honorary Fellows; and such bye laws from time to time to vary, alter or revoke, and make such new and other bye laws, as they shall think most useful and expedient, so that the same be not repugnant to those presents or to the laws of this our realm: provided, that no bye law hereafter to be made, or alteration or repeal of any bye law which shall hereafter have been established by the same council hereby directed to be appointed, shall be considered to have passed and be binding on the said Society, until such bye laws or such alteration or repeal of any bye laws shall, after such notice to the Fellows as from time to time may be deemed expedient by the said Society, have been confirmed by ballot by the members at large of the said Society, ten at least of the Fellows of the said Society being present: and provided that no such bye law or alteration or repeal of any bye law shall be deemed or taken to pass in the affirmative, unless it shall appear upon such ballot that not less than two-thirds of the Fellows present at such meeting shall have voted for the same And our further will and pleasure is, that it shall be lawful for any three Fellows, by writing under their hands transmitted to the President or such other officer or officers as may by the bye laws hereafter to be made be designated for the purpose, to recommend to the council any new bye laws or alteration or repeal of any existing bye laws; and in case the council shall not agree to such new bye laws or alteration or repeal of any existing bye laws, then our will and pleasure is that such propositions shall, if required by the said three Fellows, be submitted to the consideration of the Society at large, and determined on by them in the same way as has been directed with regard to new bye laws or alterations or repeals of existing bye laws which have been approved by the council. In witness whereof we have caused these our letters to be made patent. Witness ourself, at our palace at Westminster, this thirtieth day of September, in the fifth year of our reign.

By Writ of Privy Seal
EDMUNDS.

MEDICAL GAZETTE.

Saturday, Nov. 22, 1834.

"Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."
CICERO.

MEDICAL ORGANIZATION IN AUSTRIA.

IN a subsequent page will be found a document which we read with much interest; and it strikes us that many of our readers will be obliged to us for laying it before them. On various occasions we have noticed the arrangements of the profession in other European states, and particularly, in the course of the present year, we gave an ample detail of the reformed system in Prussia. Relative to the medical affairs of Austria, a nation occupying so distinguished a position among the more enlightened countries of Europe, we were anxious for a trustworthy, and, as much as possible, an official account; this we are glad to have obtained at last, through the praiseworthy diligence of our Belgian contemporary. It will be duly appreciated, we doubt not, by all who peruse it—more especially the first part, respecting medical education, and the modes by which a supply of well-qualified practitioners for the Austrian States is secured. The other portion, concerning the arrangement of the profession throughout the different parts of the empire, will perhaps be considered more as matter of curiosity than of utility. It is so unlike anything ever even contemplated in this country, as desirable in the adoption, that most readers cannot fail to be at least struck with the novelty, as well as contrast to our system, which it affords.

The educational machinery of Austria is simple and well arranged. Making all due allowance for the difference between it and the mode which has so successfully prevailed among us for so many years, we can sincerely admire the sort of discipline laid down for the Austrian student. We think it superior to that of either France or Prussia, as affording a suitable curriculum for the general practitioner. In Prussia, it is true, the preliminary education in arts required of medical aspirants to the Doctorate, renders that class perhaps higher in intellectual attainments of a general nature than any similar body to be found on the continent; but for the ordinary, and most generally useful, class of practitioners, the education appointed in Prussia is certainly inferior to that in Austria. In the latter country there are not those various and distinct courses which are prescribed in the former, for each class of practitioners, according to the object which he may choose to have in view—whether he will graduate as a practising physician, or seek a diploma as a surgeon of the first class, or as a surgeon of the second class—whether he will practise in town, or be content with the provinces—for in all these circumstances the requisite education is respectively modified. But in Austria there is one common course of professional discipline, at least up to the period of selecting which branch the candidate will adopt for practice; and that common course is of a most ample and comprehensive kind. With a preliminary education equal to that required on entering the medical schools of Paris, the Austrian has a decided advantage over the French arrangement for professional education, if it were only in the additional year devoted to it in the former country; the curriculum in Austria occupying a period of five years, while that in France requires but four.

If certain of our reformers in this country were really desirous of "levelling upwards," we could not propose to them a better standard, or model of imitation, than the Austrian system. It seems not unsuited, too, to become their *beau ideal* in another particular, inasmuch as it approaches their grand desideratum of a single faculty; and they find in it, moreover, a metropolitan body conferring degrees in the two great branches of the healing art. We could ourselves, indeed, be even content with the adoption of some such system among us; for it exhibits in actual practice that sort of projected alteration of which we have all along been the advocates. All the requisite studies are pursued in the metropolis—all the necessary qualifications, literary and professional, are there attained—and there, too, is (as we would have it) the final verdict of competency pronounced by a competent tribunal.

There are, however, one or two points in the Austrian arrangements which we should be glad to see modified. Among the examiners, for example, at the final ordeals (the *Great-goes* we suppose we may call them), we would not have any of the actual professors appointed. The arbiters of the student's competency should not be those who are in daily habits of intercourse with him as his teachers: though the system which prevails on the continent, of paying the pupils' fees into the government purse, and remunerating the professors by salaries, takes off much of the objectionableness of the proceeding to which we allude. Here, in this country, most undoubtedly, under any new arrangement that may be adopted, the possibility of one and the same set of men being both examiners and teachers were perfectly inadmissible. In point of qualification for so important an office—abstractedly from the partial influences which might come into play—few, we are aware, ought to be considered as better adapted for the task of gauging the candidates' acquirements; but the very suspicion attaching to the circumstances, would, in the end, place in a stronger light the necessity of placing none in the chair of judge who had not previously resigned that of the professor.

The repeated examinations—weekly, semestral, and annual—to which the students are obliged to submit, in order to give proof of their progress, or otherwise be thrown back as incompetent, are all excellent in their way, and worthy of imitation wherever there are schools of medicine established.

With respect to that part of the paper which relates to the organization of the profession, we have but few remarks to make. It is, as we have said, curious, and perhaps, for a country governed as Austria is, the best suited to the circumstances. There are not those numerous grades and orders of practitioners recognized there which we find in Prussia; but the appointments of provincial and district state medical officers are on fully as adequate a scale as in the latter country, and commissioned as if the whole population of the land constituted but *one great army*. The care bestowed on the public health by the Austrian government is truly admirable, and many of the measures ordained for the purpose cannot but be ultimately productive of much benefit to medical science. We allude more particularly to the annual reports required of the *Proto-Medici;* containing minute particulars of every thing relating to the salubrity of their respective provinces, and including the hospital returns, remarkable cases, observations, &c. Such a mass of information, well drawn up, must prove of the highest value at some future day, when scrutinized and digested by a Van Swieten, a Hildebrand, or a De Haen.

There is one remarkable duty connected with the office of the Austrian *Proto-Medicus*, which the reader will not omit to notice; and that is, the exercise of a *censorship* over the medical press. By the terms of his commission, this officer must look to the purity of the medical journals from all matter of political import or tendency: he must inspect the manuscripts of professional authors, who in their turn are obliged to submit their papers for his approval previous to publication. This is, it must be confessed, rather an odd precaution against treason—it certainly passes all our experience; for who ever heard of a political squib shot off in the shape of an hospital report, or even of disaffection to the body politic being couched in an account of the affections of the body corporate? It may be that the Austrian legislator thought it rather suspicious that there should be so much said in medical books about the *constitution*, the necessity of altering the *regimen*, and of *letting blood* freely at certain times. But however it be accounted for, it is well we have not the felicity of being supervised by an Austrian censor: for we, as well as most of our brethren, have the name of being political—though how the fact could be proved against us we have not an idea. Were we at this moment to write an article founded on the *dismissal of ministers*, and to draw our inferences, or hazard our predictions, relative to the chances of a certain stock-jobbing establishment obtaining a charter from the new administration — supposing for a moment that it ever had a chance of one from the old, we should fairly lay ourselves open to the charge of being political partizans. But as we never indulge in these speculations, we shall not permit ourselves to say more on the subject at present.

PRESENT SYSTEM
OF
MEDICAL EDUCATION,
AND
THE ARRANGEMENT OF THE MEDICAL PROFESSION,
IN THE
AUSTRIAN STATES.

THE laws by which the profession in Austria is governed, were enacted in the reigns of Maria Theresa, of Joseph II., and of the Emperor Francis I. The object is the improvement of medical education in the schools, the supplying of suitable practitioners for the people, and the regulation of the *pharmaciens*, who alone are permitted to deal in drugs and medicines. They further contain clauses of great severity for the checking of charlatanism; and in order that the magistrates may be fully acquainted with every thing relating to hygiène and medical police, appointments are provided in the several districts for a body of well-instructed and experienced medical persons, specially entrusted with this duty.

1. SYSTEM OF EDUCATION.

There is no distinction made, in the Austrian universities, between the education of physicians and that of surgeons. The students destined for either pursuit must attend the courses of both branches of the healing art, and not until they have completed their curriculum are they allowed to choose which they shall practise: but they may practise both if they choose, and be found properly qualified.

The qualification for a doctor of medicine or surgery, consists in a five years' attendance of lectures in some national university; the three first years being devoted to the study of the collateral sciences and the theoretical parts of medicine, and the last two being employed in special therapeutics and practice, at the bed side of the patient. The following is the order in which the several branches are studied:—

First Year...	1st Semestre.	A general introductory course of medicine and surgery. A course of anatomy. A course of special natural history.
	2d Semestre.	The courses of anatomy and natural history repeated. A course of botany.
Second Year.	1st Semestre.	Anatomy and physiology of a more advanced character. General chemistry.
	2d Semestre.	Anatomy and physiology continued. Pharmacy and animal chemistry.
Third Year.	1st Semestre.	1. General pathology (etiology, semeiology, and general therapeutics). 2. Materia medica and chirurgica, dietetics, and art of prescribing. 3. Theoretical surgery (general and special pathology of surgical disorders). Midwifery.
	2d Semestre.	Courses 1, 2, 3, preceding, continued. Bandages and surgical instruments, from June till the end of the medical year.
Fourth Year.	1st Semestre.	1. Special therapeutics of internal maladies. 2. Internal clinique.
	2d Semestre.	1 and 2 preceding continued. Veterinary medicine.
Fifth Year.	1st Semestre.	1 and 2 of preceding year continued. Forensic medicine
	2d Semestre.	1 and 2 continued. Medical police.

It is to be observed, with reference to clinical instruction, that, both in Austria and Prussia, students who have completed their theoretical courses are divided into practising pupils and assistants; the former being entrusted with the treatment of a certain number of patients, whom they visit under the inspection of the clinical professor. If they acquit themselves well, he does not interfere; if not, he instructs them in the questions which they ought to put. After each visit, the professor interrogates the pupil as to the class, order, and species of the malady, the prognosis, and the indications. If the pupil be right, he is requested to prescribe aloud. An assistant is attached to each practising pupil, who goes round with him, and in the course of six months becomes a practitioner himself.

The lectures on physiology, pathology, materia medica, and special therapeutics, as well as the clinical remarks at the patient's bed-side, are delivered in Latin: in all the other courses the German is the language employed. In Hungary, Poland, and Italy, the language of each country respectively is used.

Previous to admission to the medical schools, the pupil must produce a certificate of having attended a three years' course of humanity in some national school; and pupils are arranged, in general, in three classes; the first consisting of those who have answered best, and obtained the title of *eminent*, the others according to their respective merits. Diligence and moral conduct are high recommendations in the certificate for admission: in fact, the law expressly declares that this must be seriously attended to, in order to exclude, as much as possible, from the study of an art so important and difficult as that of medicine, all those who are not more or less distinguished by their attainments and good conduct.

Matriculation is not attended with any expense.

Students are forbidden to smoke cigars, or to frequent drinking-houses.

No student can advance to a higher class without having attended that immediately preceding it; and he must pass an examination. If his answering be but second-rate, he must go through his last courses again; and if upon another trial he be found deficient, his name is erased from the list of medical students, and he is precluded from entering any other national university.

Every professor is bound to examine his class once a week publicly, for at least half an hour. The results he must note down, for the better arrangement of the classes. At the end of every semestre, the pupils are examined in their previous courses: the first examination takes place in the latter part of March, the second towards the end of August; the particular day and hour being announced a month previously. The director and a commissioner of instruction are obliged to attend at these trials; and the professors are enjoined by the law to be as strict as possible, and not to allow themselves to be carried away by an ill-judged indulgence. It is during the first year they are expected to be most severe, in order to get a timely riddance of those students who are dull or negligent, and to secure the state against the danger of having ignorant physicians or surgeons admitted to practice. In the certificates given on these occasions, not only the abilities of the pupil are set forth, but his moral conduct is noted.

The fees paid by each student amount to 30 florins (about 3l.) a year—3 florins a month. These charges go chiefly to the support of a certain number of poor but respectable students, who belong to large families of straightened means, and are distinguished for their diligence and good behaviour.

In order to be admitted to the final examinations, the pupil must shew that he has acquitted himself well at the weekly ones, as well as at those at the end of each semestre. The Dean of the Faculty is obliged to pay special attention to this rule, or otherwise forfeit 20 florins to the general fund. Two students cannot be examined at the same time. The judgments of reception are *Satis*, *Bene*, or *Valde bene.* If two professors vote for the candidate's rejection, he must be examined over again at some future time, going through certain courses prescribed to him in the interval. If he decline this, he is not entitled to have his examination fees refunded to him; but if he submit to a second trial, he has nothing additional to pay. Not so, however, if he be rejected a second time: he must pay his fees afresh for a third examination. Nobody can be examined more than three times: a third rejection disqualifies the candidate from ever practising in Austria.

Previous to the admission of the candidate to examination, he must produce an account of two medical cases treated by himself, and also a report in legal medicine. These papers must be forwarded to the Dean, who communicates them to the examiners, and upon their approval the candidate is admitted to the final *rigorous* examinations.

The rigorous ordeals for the diploma are two in number. The first is an examination in anatomy, botany, natural history, physiology, general and special pathology of external and internal diseases, semeiology, and general therapeutics. The examiners are the Dean, the President of the Faculty, and the professors of anatomy, botany, natural history, physiology, and pathology.

For the second, the subjects are, chemistry, forensic medicine, ophthalmology, materia medica, art of prescribing, and clinical practice; and the examiners are the professors of chemistry, forensic medicine, ophthalmology, and materia medica, together with a physician unattached to the faculty. In Vienna, the latter person is the vice-director; and in the provinces, some practising physician, not a professor.

The candidate may answer, as he pleases, either in Latin or in the vernacular.

Having passed these examinations, he is obliged to write a dissertation on a medical subject. He must also add some theses, which he has to defend publicly against three disputants—doctors of medicine or surgery. The Dean, and the President of the Faculty, as well as four professors, must attend the reading of the dissertation, and copies of it are to be distributed to all who may be present: the said dissertation and theses being written and defended in German, if the Dean grant leave; but this is not very usual, nor without some reasonable pretext.

The expenses of these final *rigorous* examinations are—for the first, thirty-five florins, five florins being paid to each examiner; for the second, sixty-three florins, nine florins to each examiner. The fee to the censorship, exercised by each of the professors in turn, is four florins fifty kreutzers; for the admission, &c. sixty-nine florins; to the president of the dissertation, twenty-seven florins: in all, 199 florins (nearly 20*l.*)

If the candidate seek the diploma of doctor of surgery—1, He must be examined in anatomy, chemistry, materia medica, the art of prescribing, forensic medicine, ophthalmology, and the theory and practice of surgery; 2, He must perform two operations on the dead body publicly, and in presence of all the professional men and pupils who choose to be present. Previously to operating, he must give a history of the process which he is about to adopt, describe it, point out the different modes in which it may be performed, distinguish the several advantages and disadvantages of each mode, note the indication and contra-indication, shew how the instruments and bandages are to be employed, &c.: in short, he must act with all the care and attention he would use with the living.

The expenses of these examinations for the surgical diploma are—for the first, seventy-two florins—of which the seven senior examiners receive nine florins each, the junior half that sum; for the second examination, the candidate pays fifty four florins, nine florins to each examiner. The admission is sixty-nine florins thirty kr.; and the sum total, 195 florins 30 kr. (about 19*l.* 10*s.*)

If a doctor of surgery wish to obtain the degree of doctor of medicine, he must be examined—1, in botany, physiology, natural history, general and special pathology, therapeutics, and semeiology of internal diseases; 2, in practical matters relating to internal medicine. For both these examinations, the dissertation, and the admission fees, &c., the expenses are 114 florins 30 kr. (about 11*l.* 10*s.*)

If a doctor of medicine wish to be admitted to surgery, he must be examined—1, in the theory and practice of surgery; 2, in the public test required of every candidate for the surgical diploma. The expenses are 110 florins (about 11*l.*)

Non catholic candidates are admitted to degrees by dispensation only; but then there is no oath administered at variance with the religious tenets or observances of the parties.

2. ORGANIZATION OF THE PROFESSION.

We have now to give an account of the arrangements of the medical profession throughout the States. The supreme direction of every thing that relates to the general organization of medical affairs, is committed to the Chancellory of the court of Austria. In the provinces, it is entrusted to the provincial officers (*Landesstellen*), who, however, are obliged to have recourse to the Chancellory in all matters of importance. As all kinds of quarantine regulations, and the appointment of *cordons sanitaires*, rest with the Minister of War, the provincial magistracy have chiefly to attend to the epidemics which may visit their districts. They are enjoined to take all necessary measures to stifle epidemics at their birth, or at least to prevent their spread.

In every province of the hereditary states of Austria there is a medical man, charged with the supreme direction of sanitary arrangements. This is the *Landschafts-Proto Medicus*, who is also a member of the council of state (*Sanitatsrath*), with a deliberative voice in the provincial assemblies.

The director of medical studies in the University of Vienna is also the *Proto-Medicus* of the empire. His circle of activity is therefore, as may be conceived, extremely wide, for it comprehends the whole sanitory organization throughout every part of the Austrian monarchy. This officer is second only to the Chancellor, with whom he maintains close relations,—the latter demanding his advice on all arrangements connected with the public health. The appointment of the *Proto Medici* of the provinces is in the hands of the Emperor; their salary is usually 1000 florins (about 100*l.* per ann.)

Every provincial government has a medical reporter attached to it, whose duty is is to attend at the meetings of the magistracy, to vote on all questions as one of that body, and to assist in the periodical statements required at head quarters, touching—1, the health of the local population and of their domestic animals; 2, the hospitals, their management, and the treatment therein adopted; 3, the apothecaries' shops; and 4, the conduct of the medical men who are in the service of government.

The provincial magistrates have the charge of the public health in their respective localities, and to them the district medical officers direct their reports on all such subjects; for example, as the rise and progress of epidemics, &c. On every occasion of adopting any new sanitory arrangement, they are obliged to take the opinions of the medical faculty of the province.

The district medical officers (*Kreis-physiker*) are appointed by the provincial authorities, with the consent of the *Proto-Medicus* of the province; and finally the government sanctions the appointment, if not otherwise advised.

In those towns which possess a university or a lyceum, the *Proto-Medici* are also directors of medical studies, presidents of the faculty, or the College of Physicians. But Vienna is excepted from this arrangement: there the *Proto-Medicus* of Lower Austria only exercises his jurisdiction beyond the capital. Those universities also are excepted which, like that of Pesth, possess at the same time a Director and a *Proto-Medicus*.

One part of the duties of the *Proto-Medici* is to exercise a political censorship on all works and articles in the journals connected with medicine: the authors are obliged to send their manuscripts to these officers previous to publication. Wherever there are both a *Proto-Medicus* and a *Director* in any city or town, it is the latter who acts as censor.

Among the other functions belonging to the *Proto-Medici*, are—1, that of having an eye upon the different orders of practitioners, such as the oculists, dentists, apothecaries, and midwives, throughout the province; and, 2, that of superintending the hospitals, asylums, and prisons. Their qualifications for the post must comprehend an exact knowledge of the nature of the country, its inhabitants, and their habits of life—all with reference to the public health. He must offer suggestions to the government from time to time relative to the means of removing or destroying injurious influences; and his special duties embrace the noticing of every thing connected with ill-judged sites for building, the presence of marshes, bad water, the popular prejudices respecting the physical education of children, &c. He must also see that there is a sufficient supply of clever medical practitioners in each district, and that they be not too far asunder. Quacks, and charlatan practitioners of every sort, male and female, who have not duly qualified themselves by passing the proper ordeals, he is authorized to put down; and he must take care that nobody sell drugs except the regular apothecary, and that the latter offer for sale no emmenagogues, violent medicines, or poisons, unless when applied for through the recipe of a regular physician or surgeon. He has also to inspect the foundling and maternity hospitals.

On the occurrence of an epidemic, he must repair to the place, and take measures with the district practitioners for its subdual; and when it is over, he must draw up a full report of the circumstances of its rise, progress, nature, symptoms, &c. with such pathological and therapeutical observations as seem to be called for. The *pharmaciens*, and their establishments, are under his strict surveillance; with the injunction, that on the proper discharge of this duty, depends the safety of the subject from the pernicious consequences of bad drugs. When obliged to travel in the performance of his functions, he is paid his expenses and an indemnity. At the end of every year he is bound to send in a report to the government of the province, stating the general sanitory history of the annual period just elapsed: to this he adds a list of the births, marriages, and deaths, and of the numbers received into the hospitals, asylums, &c. with returns of the number cured, or who have died. He appends likewise an account of the atmospheric constitution of the year, and of all the phenomena which seem to affect the health of man and domestic animals: besides all the remarkable cases which have connexion with the province of medicine and surgery. All this is founded on the reports of the subordinate medical officers who have charge of the several districts.

The *Proto-Medicus* of a maritime province is by right a member of the sanitory council of that province, if he reside in the district.

The *Proto-Medicus* of Lower Austria has a most extensive range of duties. Among others, he visits once a month, and without previous notice, all the hospitals within his jurisdiction, including the lunatic asylum, &c.; and the results of his examination are transmitted to government. At the end of every year, he appends to his report a list of all the practitioners within his district, with their names, appointments, and the universities where they studied.

With regard to the great body of medical practitioners, it may be divided into the several classes of the town physicians (*stadtphysicker*), the circle and district physicians and surgeons, the midwives, and the veterinary practitioners, who have been only of late recognized. The arrangement of the profession, which has long subsisted under this monarchy, has been to keep in government-pay a sufficient number of town and circle practitioners. Formerly there were, for example, nine medical men charged with sanitory affairs in Upper Austria, north of the Ens; but latterly there are, instead, a physician and surgeon to every circle, with two district practitioners. In Lower Austria, in like manner, there are in every circle a physician and a surgeon, with four subordinate practitioners, all salaried by government. The Emperor keeps the nomination to the chief places in his own hands, but always pays due attention to the recommendation of the local governments. When the situation of surgeon to a circle is vacant, the chancellory at Vienna is immediately apprized of it; and the first offer of the place is made to those surgeons who have been educated at the Institute of the University of Vienna It is announced in the Vienna Gazette, that those surgeons who would have the appointment should send in their claims to the chancellory, and not till no surgeon of this class is found forthcoming, is the place offered to others.

The appointments of circle physician or surgeon, are only bestowed on those who have obtained a diploma in midwifery; for, in places distant from the capital, the circle physicians are charged with the examination of the midwives, conjointly with the circle surgeons, who are obliged to give them instructions. Both officers are obliged to shew that they have made a special study of legal medicine, medical police, and veterinary medicine, and that they are familiar with the language of the country.

A preference is generally given, in these appointments, to those military surgeons who have served, and also have shewn themselves experienced in civil practice: and, in every instance, the utmost attention is paid to the diligence, devotedness, and moral conduct of the candidate.

Thoughout the whole of the Austrian states, it is the almost invariable practice to give no appointment, especially of a medical nature, to any one not born in the country, and who have not studied at some national university. When, in fact, a place is vacant, the names of three native graduate candidates are to be submitted to the Emperor.

It is a repeated injunction in the ordinances, never to give the appointment of a physician to any one who has not served many years in a large hospital. Recently a law to that effect has been made; and in order to ensure its observance, it is customary, on the occurrence of a vacancy, to advertise it in the Vienna Gazette for several days previous to the final nomination by the court.

It is a strong recommendation to a candidate, that he shall have contributed articles to the "Medical Annals of Austria:" the titles of these articles must be set forth, and if they relate to epidemic or endemic diseases, to remarkable cases in pathology, to medical topography—or contain suggestions for the preservation or amelioration of the public health—they are the more favourably looked upon. The careful and successful practice of vaccination, *gratis*, on a great number of poor children, is also a passport to preferment.

Residence within their respective circles is strictly enjoined to the *Kreisphysiker*, and they are forbidden, under the penalty of being deprived of their offices, to change their place of abode without due notice of their so doing.

In consequence of a notification to government, that in several of the provincial towns the *Physici* accepted senatorial dignities, and mairies, to the neglect of their other duties, an order has been issued denouncing the practice, and enjoining an undivided attention to their proper functions.

Several appointments, with salaries of 600 florins (60l.) per annum, have been recently made for veterinary practitioners in the German provinces of the empire; and the preference, in selecting the persons to be so endowed, is always given to those who have studied veterinary medicine at Vienna. Their residence is also assigned them by the government*.

ST. BARTHOLOMEW'S HOSPITAL.

Compound Fracture of the Leg—Dangerous Hæmorrhage—Ligature—Amputation.

JOHN BOW, æt. 53, a bricklayer's labourer, was admitted into this hospital on Thursday, October 30th, with a compound and comminuted fracture of the tibia and fibula. The accident occurred in the following manner:—He was climbing up a ladder, when his foot slipped and he fell from a height of six feet, with his right leg under him. At the time of his admission there was much hæmorrhage from the wound; and this continuing, it was thought proper to send for Mr. Earle. When this gentleman arrived, the bleeding was not so profuse; and on examination, he deemed it necessary to remove three portions of the fractured bone. The largest of the pieces taken away was about three inches in length, and in breadth it comprised about one-third of the middle of the tibia. Its upper extremity was sharp and pointed; its sides and lower end were rough; the other pieces were small and irregular in shape. The anterior tibial artery was bare to the extent of an inch, and the posterior tibial could be detected on the introduction of the finger: both pulsated freely, and the pulsation could be likewise detected below the injury. The man, after this day, went on pretty well. Purgatives and enemas were given to remove costiveness; liq. opii sedativus was administered to procure sleep.

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* For the above article we are indebted to the *Observateur Medical Belge*, a monthly periodical recently started in Brussels.—E. G.

On the 2d November, symptoms of pyrexia coming on, the patient was directed to take liq. antim. tart. with saline mixture; and on the 6th, pain of the chest and cough being the subject of complaint, a blister was applied over the sternum. The hæmorrhage continued, but daily diminished in quantity.

On Sunday, the 9th inst. at 11 o'clock A.M. blood was discovered to be rapidly pumping out from the back part of the wound. Luckily a gentleman arrived at this moment, and speedily stopped the hæmorrhage by pressing the femoral artery against the pubis. The man had, however, lost a quart of blood; his pulse was sinking rapidly; a tourniquet was applied, and brandy administered. Mr. Skey having been sent for, arrived in a few minutes, and concluding, from the direction of the wound, &c. that the posterior tibial artery was injured, ordered the man to be removed to the theatre.

Mr. Skey then commenced by enlarging the wound, to the extent of an inch, in a direction upwards and backwards, and then cutting down between the soleus and deep-seated muscles, found the vessels at the back of the wound. Suppuration had taken place extensively in the neighbourhood of the vessels, and had separated them from their connexion with the deep muscles: their relations to each other were likewise altered; the nerve lying internal and anterior to the artery. The tourniquet being loosened, the vessel was seen pouring out its contents; it was secured by a ligature, and, as there was much venous hæmorrhage, a branch of the saphena vein was lightly tied. The pulse being reported small and irregular, and the surface of the body covered with a clammy perspiration, Mr. S. thought it right to have the patient removed. The lower end of the wounded vessel was not tied, and, in expressing his reasons for this omission, Mr. Skey said, that from having seen the inner coat of the upper portion of vessel, he was led to believe that the other end had retracted; that as bleeding had not yet occurred from that extremity, and the force of the circulation was diminished, it was fair to infer that hæmorrhage would not occur from it: he, however, directed the tourniquet to be kept ready, and the patient to be watched during the day and night. Another reason which influenced his decision was, that had he detained the man much longer on the table, unpleasant consequences might have ensued.

November 10th.—The patient passed a tolerable night, and his pulse rose under the effect of stimuli.

11th.—Considerably worse; pulse quick and intermitting; great anxiety and restlessness.

On Wednesday, the 12th, the limb was removed by Mr. Earle; since then the patient has been slowly improving, but is still in a precarious state.

Examination of the Limb.—The ligature was found above a longitudinal fissure; the inferior portion being bound down by lymph, and covered by the nerve, led to the belief of the vessel's not being continuous. The muscle was likewise found divided at the same point as the wound in the artery.

SURGICAL REPORTS
FROM THE
LONDON DISPENSARY.

BY R. R. ROBINSON, ESQ.
Surgeon to that Institution.

CASE I. — *Malignant Ulceration of the Hand — Amputation of the Fore-arm — Secondary Hæmorrhage — Return of the Disease in the Stump and on the Scalp.*

SARAH HARRIS, æt. 55, admitted November 25th. First perceived a small tumor over the index metacarpal bone of the right hand three years and a half ago, attended with a burning pain, which gradually increased in size, and ulcerated. She had it cut out: there was much bleeding after the operation; some vessels were secured by ligature, one of which gave way, and in consequence a large quantity of blood was again lost. About three weeks after the wound had completely healed, the tumor reappeared, and she again experienced the same burning pain. In August she put herself under the care of a quack, who applied irritating applications, by which the pain and tumor were much increased.

There is now a foul malignant fungous ulcer, with hard and ragged edges, about two inches and a half long, and rather more than one broad, situated over the anterior part of the metacarpal bone of the right index finger, extending towards the thumb, where it is more tender than elsewhere; there is occasionally a little bleeding; the surrounding skin is red and inflamed, the inflammation extending towards the back of the hand; there is excruciating pain (day and night, preventing sleep) in the ulcer, but it does not extend up the arm. There is no affection of the axillary glands or mammæ; the catamenia are now regular, and have been so throughout. Low-spirited; bowels open; pulse regular, but feeble.

Uniform pressure. Solut. Calcis Chlorid. ʒij.; Aq. Puræ, ℥vi.; Tr. Opii. ʒi. pro lotione; Pulv. Doveri, gr. x. o. n.; Inf. Gent. Co. ℥iss. ter die.

Nov. 27th.—Pain very great, more particularly towards the inside of the thumb, where there seems a small tumor forming; discharge from the ulcer very offensive; pulse 120. The pressure continued, and a solution of opium, ʒj. to a pint, substituted for the lotion.

Dec. 3rd.—Pressure has been regularly applied until to day; sore much the same in appearance — less offensive — surface sloughing—pain agonizing, always worse at night; seldom obtains sleep.

Omit the pressure. Rep. Pil. et Med.

9th. — The wound continuing sloughing, and the pain very severe, though rather less since the pressure has been removed, by her express desire, and with my friend Mr. Luke's sanction and able assistance, I removed the fore-arm high up, by double flap; several vessels were secured, and the stump dressed with ligatures and strapping. The operation was well born.

10th.—Thirty drops of laudanum were given immediately after the operation, ten in the course of the afternoon, and thirty again at night. Has dozed frequently; skin freely perspires; pulse 108; tongue clean and moist; some oozing from the stump; a slight cough; bowels confined.

M. S. c. Rheo. statim Mist., Salin. quartis horis; Lotio frigida.

11th.—Some sleep from an opiate, but altogether a restless night; a little bleeding; bandage tight. Upon taking off the dressings, there were seen some vesicles and livid spots at the edge of the stump, and numerous coagula in the interior; upon the removal of which a small artery was observed bleeding. Between the bones which was secured by ligature, pieces of lint were inserted into the stump; a strip or two of plaister brought the edges together, and a bread-and-water poultice was applied.

20th.—The stump suppurating well; no further bleeding; all the ligatures have come away; a small ring of the radius and ulna black; less pain. Stump dressed to-day.

Feb. 25th.—The stump has been healed some time, all but a small spot over the ends of the bones, from whence a small piece of bone has already come, and two others are coming away; improved much in health at one time—not so well now; countenance looks haggard and sallow; nights are very restless; she has had a cough and dyspnœa some days, to which she is subject every winter, which has been relieved by blistering, opium, squills, and aloes. A few days ago she perceived a small pimple over the upper part of the left side of the frontal bone, apparently attached to the occipito-frontalis muscle; it is very tender to the touch, particularly since she scratched it, two days ago. Tongue coated and white.

Cat. panis. Tr. Opii. ♏xxx. o. n.; Mist. Cath. p. r. n.

March 9th.—The tubercles on the forehead have spread slowly; there is another close to them, not at present painful. Two small tubercles, that seem disposed to fungate, at the outer side of the stump, which burn at night, but are cooled by goulard wash.

Opii, gr. i.; Scillæ P. gr. i.; Aloes, gr. iij. o. n.

23rd.—Pain has been very great, particularly in the stump; looks more haggard and sallow; orthopnœa, a sensation as if a load was attached to the lungs, preventing her from raising them; cough continues; the places on the forehead and stump much the same; pain, apparently of a rheumatic character, down the left side of the face and neck; has taken colchicum, without relief; tongue white, moist; pulse feeble, quick, and irritable; bowels open.

Lin. Volatile Opiat.; Quin. Sulph. gr. i.; Ext. Conei, gr. x. ter die.

April 5th. — Weaker; more sallow; breathing short and wheezing; much expectoration; is reported to have brought up some black and green fluid, with some blood, a few days ago; the tubercles about the forehead and stump on the increase; no rest without thirty drops of laudanum at bed-time; pulse 104; tongue moist.

11th.—She was seized with pain at the epigastrium, nausea, and distention of the abdomen; the dyspnœa increased; she was light-headed; had lividity of countenance, lips, and nails; and died this day.

I could not obtain permission to examine either the stump or the body. The hand is in my possession; I have injected it with size and vermillion. The tumor seems to originate from the theca of the flexor tendon: at its base it is hard, and apparently scirrhous; above, it possesses the characters of the medullary fungus; it is softening in the centre, where it is of a red colour—elsewhere it is brown; there are no vessels observable in the tumor, though a branch well filled runs by the side of it.

Remarks. — The reappearance of the disease in the cicatrix three weeks after the healing of the wound, its appearance in the scalp, and *subsequently* in the stump after amputation, and the sallow, haggard appearance of the countenance, show that in this case the constitution was much affected, if the disease was not of constitutional origin. I very much regret I could not obtain a post-mortem examination, for I think this patient died chiefly from disease of the lungs; but whether the pulmonary affection was malignant, or simply chronic bronchitis, or both, is not clear. The sense of a load attached to the lungs, which prevented her raising them, (to use her own words), the appearance of tubercles in the wound, the stump, and the scalp, would induce the suspicion that malignant tubercles might have been deposited in the lungs also; more especially as it is not uncommon to find such deposition in malignant diseases: on the contrary, the absence of dulness at any particular part of the thorax, the apparent patency of the pulmonary tissue at most points, and the decided wheezing throughout, are more in favour of the existence of bronchitis, and *no* other pulmonary affection.

This is a case where the chances were against a successful result, and therefore no one would, I think, have *proposed* amputation; but when the patient, from extreme suffering, urged its performance, I considered myself justified in complying. I think it very *doubtful* whether she would have existed four months without the operation; and it is *certain* that she had, during a great part of that time, more ease than she had for a long time previously experienced.

It is further worthy of notice, that secondary hæmorrhage followed both operations to which she submitted.

Case II.—*Malignant Ulceration (?) of the Right Groin—Fatal Hæmorrhage.*

Mary Glyn, æt. 60, a thin, emaciated, sallow woman, admitted September 12th, perceived a small pimple over the symphysis pubis, many months ago, which she neglected. It has since spread considerably; there is now an ulcer extending from the symphysis throughout the right groin to the anterior superior spinous process of the right ilium; the ulcer, in appearance, is much like some forms of chimney sweepers' cancer (she has not, however, been in the way of soot): the edges are irregular, hard, thick, and everted; in the centre the ulceration is very deep, and covered by a thin yellow slough-like looking substance. Pain excruciating; no rest; no appetite; pulse feeble and quick, tongue clean; great prostration of strength.

> Ol. Ricini, ℥i.; Ung. Opii. (she refused to poultice the ulcer); Inf. Gent. Co. ℥iss. M. S. ʒi. ter die.

Sept. 16th.—Ulcer cleaner—it suppurates freely; pain considerable; excavation does not look quite so deep. Having no person to take care of her, and being destitute of the necessaries of life, I advised her to go to a hospital, but she obstinately refused.

Rep. Ung. et Mist.

17th.—Last evening she suddenly felt wet, looked down, and found herself deluged with blood, which her daughter says was of dark colour, and came out in a stream, with great rapidity, in a quantity more than sufficient to fill two wash-hand basins; in five minutes she was a corpse. A post-mortem examination of the body was refused; but I carefully examined the wound, when I found the superficial fascia and portions of the fascia latra destroyed, as well as the vena saphena major. I think that the ulceration had also destroyed a portion of the right femoral artery and vein, as neither of these were discoverable; but in the place where they should be, there was an irregularly ulcerated cavity, of chocolate colour, extending some way towards the spine of the ilium, in which was some chocolate coloured fluid, more like that which comes from a softened medullary fungus, than actual venous blood.

Remarks.—I very much regret that I could not obtain a post-mortem examination here, as I think it would have been both interesting and important.

The feature of most interest in the case, was the sudden and fatal hæmorrhage—an occurrence, as far as I can see, unavoidable; for it did not appear to me justifiable to apply a ligature upon the artery above the ulcer before any bleeding occurred, for the following reasons:—

1st, Because, in many instances of extensive ulcers over large vessels, they have not been involved, and no hæmorrhage has ensued.

2dly, Because, in some cases of this description, the vessels have been found obliterated at these parts.

3dly, Because the disease, having the appearance of a malignant one, it would in all probability have soon proved fatal, had the operation been successfully performed, and no bleeding ensued.

4thly, Because the ulcer, being placed over the femoral artery and vein, might have perforated the latter and not the former; and then an extensive and perhaps fatal hæmorrhage would have supervened, notwithstanding the operation. When the bleeding did occur, the blood was so rapidly and so largely poured out, and the artery and vein appeared so much diseased, that surgical aid (even had she gone, as I wished her, into the hospital), would, I apprehend, have been in vain.

Case III.—*Malignant Ulceration of the Neck of the Uterus—Communication between the Bladder and Vagina.*

Mary Clark, æt. 42, admitted March 16th. The mother of nine children; the youngest 6½ years old. All her labours natural. In June last she experienced, for the first time, sharp pains down the inside of both thighs, which lasted six hours, and then removed towards the anus, where they remained for the same length of time, and then for six hours were seated in the vagina: the remaining six hours out of the twenty-four she was easy. This state has continued daily, with now and then an interval of two or three days, ever since. About the time that she first felt the pain, the catamenia came on excessively, and lasted for a fortnight. They have since returned, in greater or less degree, weekly. Sometimes they are very deeply tinged with blood, at others they are pale. She is always easiest at this period. Upon examination through the vagina, the os uteri was found to be hard, ulcerated, and occupied with a cauliflower-like excrescence, the discharge from which is of a red colour, and free from fœtor. Fallen away for the last four months—the two last rapidly. She is now exceedingly reduced; features very much shrunk; countenance sallow; appetite gone; bowels open.

Solut. Calcis. Chrolid. Tr. Opii, aa. ♏x. ter die.

May 17th.—Continued the mixture a month without any alteration; more feeble, thin and sallow; pains at times shooting and severe. From constant straining, piles were produced a week ago. A constant bloody discharge from the vagina, with some clots.

Omittatur Mist. Pulv. Opii, gr. ij. o. n.

June 7th.—The opium constipating the bowels, hyoscyamus was substituted for it; but it griped and irritated the bowels so much that the liq. opii sedativ. was substituted for that: this agreed well; the pains subsided under its use, and she seemed much better until a week ago, when she was frightened by a boy falling out of a window, since which she has had more darting pains about the pubes, rectum, and back; more bloody discharge from the ulcer, which, to the touch, is much the same; more bearing down, and more difficulty in making water. Countenance is more leaden; pulse small, soft, and feeble; but the tongue remarkably clean and moist.

Repetatur Pulv. Opii.

18th.—Less darting pains in vagina; less discharge; suffers much from flying pains in the upper, and also in the lower extremities.

September 13th.—Has sunk greatly the last few days; cannot sit up; the legs swell; less pain in the vagina; some clots of blood weekly discharged from there; sometimes slight retention, at others involuntary discharge, of urine.

Ol. Ricini. Rep. Pulv.

15th.—Urine was retained till this morning, producing great distress, when she had a copious discharge from the bowels, with hard lumps, soon after which a large flow of urine took place, and she is now wonderfully relieved.

Repetantur Pil. et Ol.

21st.—Quite easy; has not passed urine, and she distinctly states that she has had no involuntary flow. Intestines tympanitic.

24th.—No urine passed since last report. She was exhausted, and died this morning.

Dissection.—Complexion and skin generally sallow; no fat under the integuments; some ounces of serous fluid in each side of the thorax; lungs unadherent, œdematous, particularly posteriorly; heart healthy. A considerable quantity of serum in the abdomen; a great part of the peritoneal coat of the liver thickened, puckered, and cartilaginous; stomach large, and greatly distended with gas, as were also the small intestines and transverse colon; the structure of these viscera healthy; mucous membrane of the rectum slightly thickened, and of a deep red colour—in some parts almost black, free from ulceration. The uterus was puckered about, the neck, which was the seat of a medullary ulcerated fungus, involving and destroying the surrounding parts. Several portions of fungus, some of white, others of deep-red colour, sprung from the vagina, the neck of the uterus, and under surface of the bladder, of the consistence of brain, softening under pressure between the finger and thumb. The ulceration had extended completely through the neck of the uterus, so that the reflection of the peritoneal coat was all that prevented the body of the uterus from being completely separated from the cervix during life; this was so softened by the disease, that the slightest touch made a rent in it. The body of the uterus was striated, hard, and apparently scirrhus; in its interior there was a layer of a yellow substance resembling fibrine. The lateral ligaments of the uterus were of cartilaginous hardness; the ovaries small, and of deep purple colour.

Bladder empty: on opening it, the orifice of the urethra was of a highly red colour, from increased vascularity: upon cutting it open entirely, it was found to have a very extensive communication with the vagina, having been implicated in the ulceration above described.

Lumbar glands unaffected.

Remarks.—This case is important, as bearing upon the question of excising the neck of the uterus in cases of malignant disease; and proves the necessity of operating early, if we operate at all, as the ulceration here had extended into the bladder, and extensively destroyed its parietes. This extension of the disease appears no uncommon circumstance, for I have in my possession two other preparations illustrative of it.

It is most probable that the existence of this communication might be ascertained by passing a catheter into the bladder, and examining with the finger per vaginam; though I am not certain that this method might not deceive: if the catheter is touched by the finger so introduced, then the communication would be obvious; but if it is not, it is not so obvious that no communication exists, for the extension and irregular growth of the fungus might sometimes have a valvular effect, and sometimes not; and thus I would explain the circumstance of there being at one time incontinence, at another retention of urine.

If the woman's account of her sufferings can be relied upon (and she was very clear in what she stated), there was little or no urine secreted for nine days prior to dissolution, and the pain shifted, at the commencement of her illness, no less than *three times in every twenty four hours, lasting exactly six hours in one part.*

It is also worthy of note, that, with such extensive malignant disease of the uterus, the lumbar glands were unaffected.

With these cases I shall conclude my Surgical Reports, as I fear I have already trespassed too much on the pages of this journal. When it is stated that the preceding cases, with very few exceptions, occurred within a period of twelve months—viz. from October 1832, to October 1833—it will, I think, be admitted that Dispensary practice is capable of furnishing instruction to pupils, and facts worthy of a place among the records of our profession.

STATISTICAL SOCIETY.

Monday, Nov. 17, 1834.

The Marquis of Lansdowne, President, in the Chair.

The Society held its first ordinary meeting for the season on Monday evening, when about 150 of the Fellows attended. The business commenced by reading over the names of all those who were elected Fellows since the anniversary meeting, as well as a considerable list of donors who have presented books, maps, &c. to the Society.

An account of the proceedings of the Statistical Section of the British Association, lately assembled at Edinburgh, by Mr. Maclean, was read by his brother secretary, Mr. Woronzow Greig; after which a paper by the latter gentleman was communicated to the Society, and excited much interest. It related to the *character and condition of the Irish labourer.* Mr. Greig made a tour through the sister country last autumn, for the express purpose of ascertaining the actual state of the peasantry, and of agricultural labour. His account of both is very unfavourable: he estimates at a very low rate the amount of labour produced, or capable of being produced, by the common Irish operative: the fact he attributes to the habits of indolence of the natives, and their contentedness with a most meagre and insufficient diet. Their love for ardent spirits, too—

to which they are most deplorably addicted in the absence of any more wholesome stimulant—is ruinous both to their health, strength, and prospects.

The last communication read to the meeting, was an interesting account of the state of the savings banks of Exeter and Devon.

Among the Fellows who were present, we noticed Mr. Malthus, Mr. Hallam, and several other distinguished persons.

PAUPERS AND PARISH SURGEONS.

NOTE FROM MR. HOOPER.

To the Editor of the Medical Gazette.

Sir,

Presuming the observations in the last two numbers of your Gazette, upon the want of promptitude in parish surgeons, relate to the case of a child who was burnt to death in my parish, and consequently under my care, I feel myself called upon to correct the very erroneous statements there put forth, although you have done me the justice to acquit me of all blame in the case. The newspaper report of the coroner's inquest was an exaggerated statement of the facts, because I suppose the reporter thought the truth too insipid to answer his purpose, but even that report would not warrant your assertions, that "a poor child was lost for want of timely medical assistance," and that "some hours were lost before a little liniment could be procured for the burnt sufferer through the necessary order, and several more elapsed before the surgeon could attend in person; but when he did arrive, it was too late—the patient was dead!"—No. 363, p. 211

Now, sir, if you will take the trouble to *refer to the coroner's notes*, you will find that three of the most respectable witnesses swore that my assistant attended immediately after the accident, and sent medicines as soon as he returned home from visiting it; which did not exceed six minutes; that no order was asked for, or required, by me or any of my establishment; that I attended the child twice the same day; that she was subsequently attended by another surgeon, at the request of her friends; and that she *lived three days after the accident!* I do not believe, sir, that these inaccuracies were published intentionally; at the same time I feel that due caution has not been observed by you, in promulgating such reports without good authority, and as they are calculated to injure my character, I trust you will do me the justice to insert this letter in your next number.—I am, sir,

Your obedient servant,

R. L. Hooper.

London Road, Southwark,
Nov. 18, 1834.

[As Mr. Hooper has thought fit to come forward and connect his name with the transaction to which we alluded, we have only to regret that he did not shew an equal zeal in correcting the misstatements of the newspapers. We had no access to the "coroner's notes," but were simply indebted to the public prints for our information. One word more: if Mr. H. had read our remarks, with but a common understanding of them, he would not have fallen into the gross mistake of supposing that we complained of any "want of promptitude in parish surgeons;" much less that we had the most remote intention of "injuring his character."—Ed. Gaz.]

SATURNINE AMAUROSIS.

In a memoir on this subject recently published by M. Duplay, of the Hôpital de la Pitié, attention is directed to the following propositions:—

1st. Amaurosis, succeeding to colic from lead, or to the nervous colic that approaches it, presents this characteristic, viz., that it shews itself suddenly; in some hours the patient completely loses the power of vision, and can no longer distinguish the light.

2nd. It commonly makes its appearance after several attacks of colic; yet it may supervene on the first attack, as well as many other lesions of innervation in some individuals affected with lead colic.

3rd. Most commonly the disease is announced by the following symptoms; cramps; pains in the arms; some paralysis of the wrist; epileptiform fits and delirium: occasionally, on the contrary, it comes on suddenly, and it is only after some time the other symptoms make their appearance.

4th. The duration of this form of amaurosis is commonly short; some hours to one or two months; the mean term is five or six days: in one single case from lead colic it had resisted all the means employed. It has shewn the same tenacity in another case, observed by Felix Plater, in which the amaurosis coincided with an hysterical colic. Stoll says, that amaurosis from lead, or hysterical colic, is temporary, and disappears on the cessation of the paroxysm.

5th. The same treatment as for lead colic generally dissipates the amaurosis: in one case, large bleedings were inefficient, and purgatives have removed it in another, where it was complicated with nervous colic and constipation.—*Archives Generales, and Dublin Journal.*

PINEAL GLAND.

M. Wurzer, the venerable professor at Marburg, has recently analysed the gritty matter found in the pineal gland, and has ascertained it to consist of carbonate of lime, phosphate of lime, iron, and manganese. Fourcroy and Vauquelin could never obtain from it more than phosphate of lime and animal matter; but M. Wurzer, having frequently repeated his analysis, is positive as to the results.—*L'Observateur Medical Belge.*

ANATOMICAL DIFFICULTIES OF THE SEASON.

Owing to the absurd prejudices which still exist among many of our parish functionaries, much difficulty has been felt in procuring any thing like a compliance with the ninth section of the anatomy act this season. There is said to be no considerable mortality just now; but such as there is, perhaps might afford a reasonable supply to the schools, were there no obstacles thrown in the way by certain ill-judging overseers and ultra-humane vestrymen. A communication from Lord Duncannon, to the parish of St. Mary, Whitechapel, exhorting the authorities in that quarter to second the exertions of the Inspector of Anatomy, was reluctantly listened to on Thursday, and a tardy consent given to attend to his Lordship's suggestions.

APOTHECARIES' HALL.

LIST OF GENTLEMEN WHO RECEIVED CERTIFICATES ON THURSDAY, NOV. 20, 1834.

Isaac Byerley, Liverpool.
George Varah, Sheffield.
Frederick James Chapple, Stonehouse, Devon.
Charles Redwood Vachell, Cardiff.
James Berry, Bristol.
James Newton Heale, Bristol.
Jabez Carr, Birmingham.
William Jones, Birmingham.
James Taylor, Birmingham.

NEW MEDICAL WORKS.

A Treatise on the Nature of Cholera, by S. Brougham. Post 8vo. 5s. 6d. cloth.

Elements of Chemistry, by E. Turner. Fifth edition, 8vo. 21s. bds.

The Principles of Ophthalmic Surgery, by John Walker, of Manchester. 12mo. 5s. 6d. cloth.

Good's Study of Medicine, fourth edition, by Samuel Cooper. 4 vols. 8vo. 3l. 3s. bds.

Popular View of Homœopathy, by the Rev. Thomas Everest. 18mo. 3s. 6d. bds.

Treatise on the Diseases of the Eye, by William Mackenzie. Second edition, 8vo. 25s. bds.

Sir A. Cooper's Lectures on Surgery. 18mo. Fourth edition, 6s. 6d. bds.

The Medical Pocket-Book, 1835. 3s. cloth, 5s. tuck.

Mr. Curtis has in the press a new edition of his Treatise on the Physiology and Diseases of the Eye.

WEEKLY ACCOUNT OF BURIALS,

From Bills of Mortality, *Nov.* 18, 1834.

Abscess	2	Hooping-Cough	10
Age and Debility	39	Inflammation	19
Apoplexy	8	Bowels & Stomach	6
Asthma	12	Brain	2
Cancer	4	Lungs and Pleura	7
Childbirth	6	Insanity	2
Cholera	2	Liver, diseased	7
Consumption	64	Measles	15
Convulsions	25	Miscarriage	2
Croup	3	Mortification	6
Dentition or Teething	6	Paralysis	1
Diarrhœa	1	Rheumatism	1
Dropsy	12	Small-Pox	8
Dropsy on the Brain	13	Sore Throat and Quinsey	1
Dropsy on the Chest	1		
Fever	13	Spasms	1
Fever, Scarlet	14	Unknown Causes	4
Fever, Typhus	1		
Gout	1	Stillborn	12
Heart, diseased	1		

Increase of Burials, as compared with the preceding week . . . 17

METEOROLOGICAL JOURNAL.

Nov. 1834.	Thermometer.		Barometer.	
Thursday . 13	from 34	to 46	30 19	to 30·25
Friday . . 14	30	48	30 30	30 33
Saturday . 15	35	48	30 30	30·23
Sunday . . 16	31	46	30·17	30·14
Monday . . 17	37	51	30 07	30 03
Tuesday . . 18	36	51	30 02	30·05
Wednesday 19	30	44	30·09	30·13

Wind variable, N.W. prevailing.

The afternoon of the 15th and the 16th, cloudy; otherwise generally clear.

NOTICES.

"J. G." on the treatment of Jaundice is neither original, nor sufficiently practical for us.

We can make nothing of the paper on Epilepsy, by L. H.: it reminds us of some of the quack advertisements which are but too often to be met with in the newspapers.

"A Parishioner of St. Pancras" is requested to look into some of our back numbers, and see if we have not already done justice to the *excellent and charitable* institution alluded to.

"A Professional Man" (Hull) will have perceived ere this time that he did us injustice:—the second part of his letter is unintelligible to us.

W. Wilson, Printer, 57, Skinner-Street, London.

THE

LONDON MEDICAL GAZETTE,

BEING A

WEEKLY JOURNAL

OF

Medicine and the Collateral Sciences.

SATURDAY, DECEMBER 13, 1834.

PUBLIC LIBRARY 1859

LECTURES

ON THE

DISEASES OF THE CHEST,

In the course of which the Practice of

PERCUSSION AND AUSCULTATION

IS FULLY EXPLAINED,

Delivered at the London Hospital,

BY THOS. DAVIES, M.D.

LECTURE XI.

DISEASES OF THE PARENCHYMATOUS STRUCTURE OF THE LUNGS.

PERIPNEUMONIA.

Signs of Engorgement.

WE now proceed to consider the signs of peripneumonia, detailing them in relation to the order in which we have described the anatomical stages of the disease.

Local Signs.—1st. Engorgement—Crepuation.—The lung in the first stage of inflammation is gorged with sanguineous serum. You recollect the proposition I advanced in treating of auscultation—that whenever fluid, combined with air, existed in the tissue of a lung, it produced a crepitating sound. This sound is pathognomonic of engorgements. It is analogous to the bursting of a number of small, equal-sized, and slightly humid bullæ in rapid succession: it is exceedingly distinct, if the engorgement be near the surface of the lung, but becomes much less so, if it be an inch or two from it; if farther still, the crepitus is no longer heard: so that it sometimes occurs, when the inflammation commences in the centre of the organ, that no local signs whatever are appreciable, although the functional and general symptoms of peripneumonia be present. It, however, almost invariably happens that the engorgement arrives ultimately at the pulmonary surface, often in a few hours, or, at most, in a day or two, and then the crepitation, which was masked by the sound of the respiratory murmur, becomes perfectly distinct, and the disease is no longer latent or obscure.

The crepitation is heard first in the lower lobes of the lungs, because the engorgement begins there. As hepatization commences, the bullæ seem more humid, are less equal in size, and succeed each other with less rapidity. The respiratory murmur gradually diminishes, till it finally ceases with the crepitation, as the organ solidifies.

Percussion.—If the engorgement occupy but a small portion of a lobe, then there is no difference in the sounds on percussion; indeed, if even the engorgement be considerable, it requires an experienced hand and ear to detect a difference, because the inflamed lung still contains a considerable quantity of air. As the liver often mounts high in the chest on the right side, no inference ought to be drawn from eliciting a dull sound from the inferior ribs of that side, as it may depend upon the presence of that viscus, as I have before explained.

2d Stage—Hepatization.—Neither the natural respiratory murmur nor crepitation can now be heard, because no air exists in the vesicles to produce the first sound, nor is there a mixture of air and serous fluid in them to produce the second. Occasionally *bronchophony* takes place, particularly when inflammation attacks those parts of the lungs where the bronchial tubes are the largest, as at their roots or upper lobes: this phenomenon is very evident when the disease appears at the surface of the organ, and is indistinct when in the centre.

When, combined with hepatization, a thin layer of fluid is interposed between the pleuræ, the bronchophony becomes louder, in consequence of its combination with ægophony. These sounds are always most distinct at those points of the chest which correspond to the roots of the lungs, because there the bronchial tubes are largest;

but as these tubes become of less diameter in the inferior lobes, there the bronchophony is less audible.

The bronchial respiration and cough always accompany bronchophony;[*] sometimes these sounds are heard when the latter is not. It appears that the two first signs may be distinguished when the hepatization is deep-seated, but the union of the whole only when it is superficial.

The solid lung renders the wheezing incident to accidental co-existing catarrhs much more distinct.

When the hepatization surrounds a large bronchial tube near the surface of the organ, particularly at its roots or superior lobes, then the bronchophony simulates pectoriloquy, and is often also accompanied by the sensation of blowing into the ear, described in the lecture upon auscultation. If a slight portion of non-hepatized lung be placed between the parietes of the chest and the resounding tube, then the "souffle voilé" is heard.

As the inflammation extends, the crepitation extends also. Thus the signs of engorgement will occur in the first instance in the lower lobe, to give way to those of hepatization; then they will be heard surmounting the parts hepatized, to give way also to those of consolidation; and so on successively, until the whole of the lung becomes solidified.

In consequence of the power of respiration being lost in the inflamed lung, the necessity for respiration increases in the other, so that in the latter the respiratory murmur becomes extremely loud, constituting the *puerile* respiration. This condition of the respiratory murmur in the healthy lung is always distinct in proportion to the extent and completeness of the hepatization.

The sound is dull upon percussion, except the disease attacks the centre of the lung, and then sufficient air will be interposed between the solid parts of the organ and the parietes of the chest to produce a good sound. Percussion on the lower part of the right side of the chest cannot be depended upon, from the presence of the liver, as I have before indicated. If, however, you have been enabled to follow the disease from the state of engorgement, then you can unhesitatingly say, if the sound be subsequently dull, that it depends upon hepatization, and not upon the presence of the liver.

3d Stage—Purulent Infiltration.—There are no local signs of this state differing from those of hepatization. The same physical state exists here, as far as relates to the solidification of the lung, and consequently the same physical signs present themselves.

4th Stage—Vomica.—But when the concrete pus softens, and is evacuated, at the point of the chest corresponding to the vomica a noisy mucous rattle occurs, which is gradually transformed upon inspiration and coughing into a cavernous sound. Pectoriloquy also appears. The sensation of blowing to and from the ear occurs, if the abscess be near the parietes of the chest, and the "souffle voilé" becomes distinct, if the walls of the cavity be thin and soft, and not adherent to the costal pleura.

5th Stage—Gangrene.—I have met with fourteen or fifteen instances of gangrene of the lung, and in every case crepitation was discoverable; doubtless, because of the accompanying engorgement of the lung. When the organ commences to break down and form an excavation, then the mucous rattle is very audible; it gives way at last to complete pectoriloquy, with cavernous rhonchus and cough. If the excavation opens at once into the bronchi and pleura, then the metallic tinkling, or the amphoric resonance, are produced.

Local Signs of the Resolution of Peripneumonia.

1st Stage—Engorgement.—You will recollect, gentlemen, that when resolution of the engorged lung occurs, that the red coloured serum gives place to a colourless fluid infiltrating the air cells; consequently, although the inflammation has diminished, or even disappeared, yet the crepitation will remain for some time; it finally, however, becomes less distinct, until at last it totally disappears, leaving the sound of the natural respiratory murmur.

2d Stage—Hepatization.—When resolution takes place from hepatization, you will remember also that the solidified lung returns into a state of serous engorgement; the crepitation will therefore reappear, constituting the "*rhonchus crepitans redux*" of Laennec. This sign, accompanied by the re-appearance of the respiratory murmur, and the absence of the dull sound on percussion, is pathognomonic of the resolution of hepatization.

3d Stage—Purulent Infiltration.—Laennec asserts that the rhonchus crepitans equally announces the resolution of the disease even in this state, but that it is ordinarily preceded by mucous or sub-mucous rattle, indicating the softening of a part of the pus. He says, also, that the respiratory murmur always appears more tardily.

When peripneumonia has attacked a large portion of the lung, the resolution occurs first in those parts which were the last affected. The resolution has sometimes, although I believe very rarely, taken place in the inverse order.

4th—Vomicà.—We know but too little of this stage to be able to give the exact signs of its resolution. There can be but little doubt that when it does happen, all the signs previously described must gradually disappear, and give way to the natural respiratory murmur.

5th Stage—Gangrene.—Resolution may take place even in this stage: the serum engorging the lung totally disappears, and with it its sign of crepitation. I have found pectoriloquy disappear also—no doubt from the union of the sides of the gangrenous excavation. A young sailor, in the wards of this hospital, was the subject of this formidable disease: we were enabled to trace all the signs, almost from the commencement, to excavation of the pulmonary substance. In four or five months he was discharged. In a year afterwards he returned from a voyage, and presented himself at the hospital in robust health. The previously existing pectoriloquy had completely disappeared.

Functional Signs of Peripneumonia.

Pain.—This is a very uncertain symptom: sometimes it occurs, sometimes it does not; when present, it usually is deeply seated, and of considerable extent; occasionally it is found only in a fixed point, and if it be acute it generally arises from pleuritic combination.

Dyspnœa.—This symptom varies according to the quantity of lung affected: if the inflammation be slight, the number of respirations are but slightly increased; if it be very extensive, I have seen, especially in children, the number augment to sixty or seventy in a minute, and the distress and danger of suffocation then become extreme.

Cough is often present, although occasionally it is so slight that the patient does not notice it.

Expectoration.—When expectoration takes place—for it is not of constant occurrence—it becomes so characteristic, that Laennec believed that from it alone the disease might be detected. The sputa, which he calls *glutinous* or *pneumonic*, collected in a flat open vessel, as a plate, form a mass so tenacious and viscous that if the vessel be reversed when full, the expectorated fluid separates, or is detached from it, with difficulty: it trembles, something like a jelly, upon agitation. The colour of the sputa varies—it may be red, or rusty, sea green, orange, saffron, yellow, or of a dull green: these colours are often intermixed. The expectoration "en masse" has something of the transparency of horn, or of white of egg slightly coloured; it contains bullæ of air of unequal size, and in large quantities. This state of expectoration seems to take place only in the first stage of peripneumonia or engorgement.

But these characters are not always so distinct, for sometimes the sputa are less viscous, less coloured, and less spumous; at others, a small quantity of fawn-coloured glutinous matter may be seen mixed in a considerable mass of mucous or pituitous fluid: occasionally these glutinous sputa occur only in the beginning of the disease, and then but in small quantity.

During hepatization, the sputa vary in appearance: they are composed of viscous pituita, or white or semi opaque yellow mucus: they are still more mucous in character when purulent infiltration supervenes; sometimes mixed with yellowish striæ, indicating, probably, the presence of pus: rarely, indeed, is the whole of the matter expectorated puriform.

The expectoration in gangrene of the lung is so characteristic that when once met with, it will be impossible to mistake it; for the odour is so fœtid and peculiar that it is almost insupportable. I have known the breath of a patient infect the air of the whole house, so that it was hardly bearable by its inmates. The colour of the gangrenous sputa varies exceedingly: it is sometimes of a bright yellow, or green, brown, or of a milky white. I have seen, in two instances, a yellowish green substance, mixed in streaks or large spots, with a matter as black as ink. The consistence of the expectoration is that of pus, although sometimes it is much thinner.

General Signs of Peripneumonia.

1st Stage—Engorgement.—It is to this state of the lung that the term inflammatory ought, I think, really to be restricted, for hepatization, purulent infiltration, and vomica, are merely consequences of engorgement, as much as abscess is a consequence or termination of subcutaneous cellular inflammation. The general as well as local signs of engorgement are also very different from those of the other stages of peripneumonia.

Thus this stage is ushered in by an access of acute inflammatory fever, usually intense, except the peripneumonia be slight and partial. The face becomes coloured of a vivid red in the first instance: if the disease be severe, the redness becomes mixed with a livid, slaty, or bluish tint, consequent upon venous congestion. The pulse is rapid, full, and hard; the blood usually presents a thick buffy coat, and the crassamentum assumes a cup-like form. As the inflammation extends, various congestions occur, but principally towards the cerebrum, so that delirium is often induced in young persons, coma in old, and convulsions frequently in children. The tongue is often intensely red, which, according to Broussais, indicates gastric sanguineous congestion or inflammation. The urine is high coloured, and small in quantity, and towards the termination of the febrile symptoms, diarrhœa occasionally supervenes.

This symptomatic fever ceases upon the diminution of the inflammation of the lung. If, however, the febrile state depends upon other co-existing causes, or if it be of the character called essential, then it often remains with unabated force after the peripneumonia has diminished or even ceased.

2d—Hepatization.—Usually, the inflammatory fever now disappears, and dyspnœa alone remains, although commonly with diminished intensity: the difficulty of breathing also soon ceases, as the resolution of the hepatized lung takes place. But it will occasionally happen, gentlemen, that you may meet with cases supposed to be consumptive, but in which the symptoms depend upon the long duration of the hepatization: thus there is dyspnœa, cough, expectoration, emaciation, an habitually rapid pulse, a slight fever in the evening, and even occasionally night sweats, although rarely so profuse as in phthisis. Examine your patient, and you will now find the value of auscultation, by discovering that there are no local signs of tubercular disease, but that one or other of the lungs is hepatized, perhaps to half or more of its mass. This state is often *curable*, and I have no doubt that many patients have been considered to have recovered from pulmonary phthisis, when they have really only been affected with hepatization of the lungs.

3d and 4th Stage—Purulent Infiltration and Vomica.—The general symptons of these states have not been sufficiently observed, but most probably they are similar to those of chronic hepatization.

5th Stage—Grangrene.—The general signs of gangrene vary; for they may be of exactly opposed characters: thus, when the disease attacks the young and plethoric, it may be accompanied by all the symptoms of inflammatory fever; if the weak or aged, it may be, and is most commonly, combined with a general asthenic condition of the system, indicated by extreme prostration of strength, and great anxiety. I have frequently seen the dyspnœa very slight, and bearing no proportion to the extent of the local, or the intensity of the general signs.

Combination of Peripneumonia with other Diseases.—Peripneumonia may be combined with pleurisy, with hæmoptysis, and with œdema pulmonum; all of which complications we shall speak of when we arrive at the consideration of these diseases.

The sero-sanguineous congestion of the lungs, which occurs so commonly in the agony of death, is often transformed into peripneumonia, if that agony be long.

Peripneumonia and catarrh are not unfrequently combined; this combination often prevailed in the influenza of last year, and in that of 1803. This is the *peripneumonia notha* of the old authors.

Tubercular disease is occasionally accompanied by inflammation of the lungs. This will be particularly indicated by the supervention of any sudden and unusual febrile attack upon the ordinary symptoms of phthisis; it is accompanied also by as sudden an increase of the dyspnœa.

There are few fevers in which peripneumonia may not occur during their course, as in measles, particularly towards the disappearance of the eruption; in the course also of confluent small-pox, or erysipelatous fevers. I have seen peripneumonia come on during the progress of continued fevers, either of the synochoid or typhoid forms, and such complications are by no means infrequent.

Inflammation of the lungs occasionally takes place during the course of pertussis; two years ago this complication existed epidemically.

Causes of Peripneumonia.

Individual.—Although the disease is always more intense in young persons of sanguine temperaments, yet it appears to occur much more commonly in old people, in whom, according to Laennec, it runs much sooner into the suppurative stage.

Peripneumonia very frequently attacks infants; it usually exists then in the lobular form, and the disease is generally fatal to them in the stage of engorgement.

External.—The external causes are the same as in those of other inflammations—as cold, sudden changes of temperature, &c. The bite of the rattle-snake is said to induce inflammation of the lungs. The disease is most common in winter.

The causes of gangrene of the lung are at present hidden in the most complete obscurity. I believe I can say to a certainty that it is not a contagious disease.

Treatment of Peripneumonia.

I shall speak of the various remedies that have been employed in what I conceive to be the order of their importance.

1st Stage — Engorgement. — Bleeding. — There is scarcely any remedy so powerful in its effect upon peripneumonia as bleeding. It is in the stage of engorgement, particularly when accompanied by general febrile excitement, that blood should be abstracted promptly and freely, and you will find, even as it flows, that the dyspnœa will diminish, and the patient express himself relieved. It is the practice in this country to bleed the patient in an upright posture, and to make a large orifice in the vein, so that fainting may be speedily induced. Experience has shewn that a greater impression is made upon inflammatory diseases by this method, and that a cure can be thus effected by a less loss of the vital fluid than if a larger quantity be abstracted in a small and slow-flowing stream. It often happens after a single bleeding, that the dyspnœa recurs with febrile reaction, and a full pulse; it will then be necessary to repeat the venesection, perhaps even three or four times, before the inflammation be subdued. It is impossible to give any other general rule as to the extent you may bleed, but that you must be guided by the intensity of the symptoms, and by the strength of the individual.

Leeches and cupping may frequently be used with advantage, when the weakness of the system contra-indicates a general bleeding.

Tartar Emetic.—Antimony, in its various forms of preparation, has been long used in medicine, and as an emetic, particularly, in peripneumonia. But it was reserved for Rasori to point out the special advantage of the tartar emetic in inflammation of the lungs. I shall not enter here into the theory of *contro stimulus*, by which he attempts to explain its action, but proceed at once to the description of the mode in which you should use it, premising by saying that there is no medicament so decisive in its action in combatting this disease.

Laennec, immediately after bleeding his patient, gave a grain of tartar emetic in two ounces and a half of a slight and cold infusion of orange flowers, sweetened with half an ounce of syrup of mallows, or orange flowers. He repeated this dose every two hours, until the patient had taken six grains, and then suspended the use of the remedy for seven or eight hours, if the symptoms were not urgent, or there was a disposition to sleep. If the symptoms were distressing, and the head became affected, he repeated the medicine in the same way, until an amelioration took place, sometimes, in severe cases, gradually increasing the dose to as much as two grains and a half.

Many patients bear the tartar emetic without its producing either vomiting or purging: most, however, vomit two or three times, and are purged during the first day, but commonly afterwards they *tolerate* the remedy perfectly. If they do not, then the addition of a little syrup of poppies, or a few drops of the tinct. opii, with the first few doses, occasions it to be borne easily.

If the first dose produce vomiting, the subsequent doses will doubtless often produce the same by mere association of ideas, and the patient will have considerable repugnance to taking his medicine. It is best to obviate this: I therefore, after freely bleeding, commence with one-third of a grain of tartar emetic in half a wine glass full of water, adding a few drops of tinct. opii, or syrup of poppies. I give two doses at the interval of one hour from each other; I then increase the quantity by another third of a grain for the next two succeeding hours, omitting the opiate, if no sickness be induced, and so on successively, by the addition of a third of a grain every two hours, until I arrive at two grains. I have not exceeded that quantity, although I have continued it for many days without producing any injurious effect.

You will often find, gentlemen, in following this plan, the disease will be considerably relieved in three or four hours, sometimes, however, not for twenty-four or thirty-six hours: according to my experience, the tartar emetic always acts best when it produces no effect except upon the inflammation itself; that is, when it occasions neither vomiting, purging, or depression of the powers of the system. It has been supposed by many, but erroneously, that it cannot subdue the disease except by previously producing these effects.

There is, perhaps, no stage of peripneumonia in which the tartar emetic may not be employed with some advantage, but it is certainly of most use during the engorgement of the lung. You will be called, gentlemen, to cases in which bleeding, perhaps, has been already carried to its fullest practicable extent, or where, in old and cachectic persons, venesection is no longer admissible; then you will find the tartar emetic, carefully administered, produce frequently the most astonishing curative effects. I have frequently left patients under the impression that their recovery was almost impossible, and yet have found that the continuous use of this medicament has snatched them from the jaws of death.

Laennec recommends that the tartar emetic should be continued until all signs of crepitation be merged into the natural respiratory murmur. This is not my practice: I am guided by the cessation of dyspnœa alone, for as he has himself observed, a non-inflammatory serous infiltration of the pulmonary tissue will supervene, and give rise to crepitation, after the inflammatory engorgement has totally disappeared.

Mercury.—Before I had occasion to see the admirable effects of tartar emetic in the first stage of peripneumonia, I freely employed mercury after bleeding: this remedy sometimes produced a good effect, but it very frequently did not: it, however, is of great use when the lungs become hepatized, as I shall presently describe. In comparing the effects of tartar emetic and mercury upon acute inflammations, I have no hesitation in saying that the first seems to act most energetically upon those of the parenchymatous tissues of the organs, the second upon those of the serous membranes.

Blisters.—Counter-irritants ought not to be applied in the first stage of the disease, especially if there be much febrile irritation; they only tend to increase the distress, and produce rarely any effect in diminishing the dyspnœa: when, however, the heat of the skin diminishes, the pulse becomes less frequent and full, and a sense of infarction or oppression exists in the chest, with difficult expectoration, then blisters, or other counter-irritants, are of great utility.

Evacuants.—It is useful to keep the bowels gently open, but free purging is rarely of service. Emetics were formerly employed, and, it is said, with much success; but, most probably, that success must have arisen in cases where the peripneumonia was combined with derangements of the digestive organs.

Alkaline Plan.—Under the supposition that inflammation depended upon a certain plasticity and thickness of the blood, alkalies were proposed for the purpose of attenuating that fluid: thus the subcarbonates of potash, soda, and ammonia, medicinal soaps, the purgative neutral salts, were administered; but these remedies, as well as the plastic theory, have become obsolete: the polygala virginiæ has also been highly vaunted, but I have never seen it produce any good effect.

Expectorants. — The ipecacuanha is an useful expectorant in all the stages of peripneumonia, especialy in children: the squills or ammoniacum should not be used except in old or cachectic persons, and then only towards the resolution of the disease.

Regimen.—The regimen during the state of engorgement must be strictly antiphlogistic; no stimulants should be given, but the patient should have a free supply of cool drinks. The room ought to be kept cool, for if its temperature be high it will certainly tend to aggravate the disease. I need not say that the most perfect repose should be enjoined, and that the patient should be permitted to speak as little as possible.

Hepatization of the Lung.—Hepatization of the lungs occasionally becomes a chronic affection, lasts for many weeks, and produces a train of symptoms simulating frequently phthisis. You will recollect, gentlemen, that in this case the air-cells are filled with a solid matter, and our first indication is to occasion its absorption. I have tried the tartar emetic, iodine, and mercury, with this view, but I have found the last incomparably the best remedy, if properly administered.

As the constitution is usually much impaired in this state of the lung, when the disease has become chronic, and as there is frequently a strong tendency to gastric and intestinal irritation, you will find the blue pill in five grain doses, combined with a third of a grain of opium, three times a day, one of the best means of affecting the system: if, however, there be purging, then rubbing in the mercurial ointment is still better. These means should be carried on until the mouth be rendered slightly tender, and it should be kept so for two or three weeks: the remedy should be then discontinued for a week or two, otherwise it will irritate and exhaust the patient; you will then recommence it, and this alternating plan must be carried on until the resolution of the lung be complete.

The patient during this time should have a moderately nutritious diet: thus I allow a little meat once a day, and a free use of milk, but no other drink stronger than water. You should watch closely the state of the circulation, general appearance, and dyspnœa, so that if the pulse becomes full, and the difficulty of breathing increases, a few ounces of blood may be abstracted, and the diet diminished, endeavouring thereby to establish an equilibrium between the quantity of blood sent into the lung and the quantity of air the cells contain.

The next circumstance you should attend to, is to keep your patient in the most perfect state of repose, both in mind and body; allow no exercise, otherwise the blood will be driven into the diseased lung with too great rapidity: indeed, I always endeavour to make the patient understand the nature of his case, the objects I have in view, and consequently the positive necessity of absolute repose, and you will generally find he will readily submit.

Counter-Irritants.—I usually also keep a blister open from time to time on the surface of the chest of the side affected.

Gangrene of the lungs requires two modes of treatment, varying according to the general state of the system. In some cases, although the least frequent, it is accompanied with inflammatory fever, and then you must treat it on the antiphlogistic plan. But when you meet it combined with great asthenia, then the affection must be treated upon the tonic and stimulating methods, as by wine and bark, &c.

THE ANATOMY AND PHYSIOLOGY OF THE LIVER.

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[Continued from p. 332.]

Of the Hepatic Veins, and of the Hepatic-venous Canals.—The hepatic veins are contained in canals, which may be called the hepatic-venous canals; they commence in the interior of the liver, and terminate at the fissure of the inferior cava. Those containing the hepatic trunks are formed by the capsular surfaces of a limited number of lobules; those containing the sublobular-hepatic veins, are formed by the basis of all the lobules.

As three vessels are contained in each portal canal, and as a branch of each vessel makes its exit from the canal at each interlobular space, each vessel necessarily forms a plexus, by which it is brought into apposition with all the spaces on the surface of the canal: but one vessel only, an hepatic vein, being contained in each hepatic-venous canal, the external surface of the vein is in contact with, and connected to, all the lobules forming the parietes of the canal, the intralobular veins, at their exit from the lobules, entering the sublobular-hepatic veins without uniting in the canals to form branches similar to the vaginal branches of the portal vein, duct, and artery. The interlobular branches of the vein and artery conveying blood to the lobules, correspond to the intralobular branches of the hepatic veins, which convey the blood from the lobules; the former arise from the vaginal branches, the latter terminate in the sublobular-hepatic veins. Thus we find that the hepatic veins have no branches corresponding to the vaginal branches of the duct, portal vein, and artery; and as Glisson's capsule is composed of the vaginal vessels ramifying in cellular tissue, we consequently find nothing similar to this capsule around the hepatic veins, these veins having no vaginal branches. In the smaller portal canals, in which the spaces are less numerous and the plexus less complicated, one side of the portal vein is in contact with the parietes of the canal. On this side the interlobular branches arise immediately from the vein, and the cellular tissue is in small quantity, forming a delicate membrane on the walls of the canal; on the opposite side, which is separated from the walls by the duct and artery, vaginal branches arise from the vein, and the cellular tissue is abundant. (Fig. 4.; see our last No. page 332, and also Fig. 5, to be given in our next.) These smaller portal veins resemble the hepatic veins on that side on which they are in contact with the walls of the canal, on which no vaginal branches are given off, on which the interlobular branches arise immediately from them, and on which there is no capsule; they resemble the larger portal veins on that side on which vaginal branches arise from them, and on which the capsule consequently exists. From the absence of vaginal branches on one side of these portal veins, it may be presumed, that should a portal vein be found entering the liver unaccompanied by a duct and artery, it would, like the hepatic veins, be connected to the parietes of its canal, and would, like these vessels, have no vaginal branches, and, consequently, no capsule. The structure and uses of Glisson's capsule are now fully explained, it being evident that the loose connexion of the ducts, portal veins, and hepatic arteries, to the substance of the liver, arises from the circumstance of the three vessels ramifying in the same canals; and that the adhesion of the hepatic veins to the substance depends on one vessel only being contained in each hepatic venous canal.

Numerous minute orifices are seen on the internal surface of the sublobular-hepatic veins; these orifices are the mouths of the intralobular veins, all of which terminate immediately in these vessels. Every orifice corresponds to the centre of the base of a lobule; the number of orifices is therefore equal to the number of lobules forming the parietes of the canal in which the vein is contained. As an intralobular vein makes its exit from the base of every lobule, and as every intralobular vein terminates in a sublobular vein, it is evident that the base of every lobule is in contact with a sublobular vein, and that the hepatic-venous canals containing these vessels are formed by the bases of all the lobules of the liver. The parietes of the portal canals are also composed of lobules; but they are composed of the capsular surfaces of lobules, and not of the bases, nor do all the lobules enter into their formation as into that of the hepatic-venous canals; for, as the interlobular ducts, veins, and arteries, ramify in fissures continuous with each other throughout the liver, many of these vessels terminate in lobules situated at a distance from the trunks from which they arise, these distant lobules not contributing to form the canals containing the trunks. As all the lobules unite to form the hepatic-venous canals, and as a certain number only enter into the formation of the portal canals, it is evident that the former are more numerous than the latter.

In the description of the lobules, the

hepatic veins contained in canals were divided into two sets, into the sublobular-hepatic veins, and the hepatic trunks. The coats of the former are delicate in texture; they are transparent; the lobules and fissures are seen through them; their internal surface is studded with the orifices of intralobular veins; their canals, which are formed by the bases only of lobules, are not lined by prolongations of the proper capsule. The trunks are more dense in structure; their external coat is composed of longitudinal bands; their canals are lined by prolongations of the proper capsule, which render them opaque, the lobules and fissures not appearing through them; they receive no intralobular branches. Dense in structure, they are not adapted to receive these minute and delicate veins; their canals, therefore, unlike those containing the sublobular veins, are, like those containing the portal veins, composed of the capsular surfaces of lobules, the intralobular veins of which terminate in a neighbouring sublobular vein.

If the internal surface of the large veins, which open into the trunks, be examined, and contrasted with the internal surface of a sublobular vein, the orifices of the intralobular veins will be found less closely arranged in the former than in the latter. This appearance arises from two causes. Two or three intralobular veins, at their exit from the lobules, frequently unite and form one vein, which terminates in the large vein, on the internal surface of which will be seen one larger orifice, instead of three smaller orifices. Frequently, also, on the surfaces of these canals the capsular surfaces of lobules are seen, the bases of which enter into the formation of a neighbouring canal; no orifices, therefore, corresponding to the bases of these lobules, are found in the veins under examination.

The intralobular veins will almost invariably be found entering the sublobular veins from the centre of what has been called the red substance of the liver.

Of the formation of the hepatic-venous canals it may be said, that the smallest of the canals, and the greater number of them, are formed by the bases alone of lobules; that the next in dimensions are formed by the bases of some, and the capsular surfaces of other lobules; and that the largest are formed by the capsular surfaces only of these bodies. As the base of every lobule rests on a sublobular hepatic vein, it is evident that those lobules, the capsular surfaces of which enter into the formation of canals, are in contact with two hepatic veins.

Ramifying in fissures which are continuous with each other throughout the whole liver, the interlobular branches of the portal vein anastomose freely with each other, enveloping every lobule in a venous web: the intralobular branches of the hepatic veins, on the contrary, confined within the lobules, have no direct communication with the corresponding branches of the surrounding lobules, from which they are separated by the substance of these bodies, and by the intervening interlobular ducts, veins, and arteries, situated in the interlobular fissures; and one intralobular vein can be injected from another only through the medium of the intervening portal veins. When injected with mercury or size, the intralobular veins appear in the centres of the lobules in the form of points, stellæ, or twigs; these veins, therefore, unlike the interlobular portal veins, do not anastomose with each other. If, by means of a pipe and glass tube, mercury be thrown into a large hepatic vein on the surface of a section, it will return by several smaller neighbouring hepatic veins, which, generally, are branches descending to terminate in the larger vessel in which the pipe is fixed. If these vessels be tied, the mercury will return by large hepatic veins, situated at a distance from the injected vessel, and not branches of it. In this experiment the force used is not sufficient to propel the mercury through the intervening intralobular, lobular, and interlobular veins, and by such means to form a communication between the two hepatic veins; for if force sufficient to effect this were used, the mercury would return by portal as well as by hepatic veins, which is not the case. If the inferior cava be opened at its posterior part, and if by the same means mercury be thrown into a small hepatic vein, it will immediately return to the cava by other hepatic veins, without appearing in the superficial intralobular veins, and without passing into portal veins. From these experiments it appears that the sublobular veins anastomose with each other, and that their intralobular branches do not.

By contrasting the hepatic veins with the portal vein, we find that no two intralobular branches of the former anastomose with each other; that the interlobular branches of the latter form one continuous plexus throughout the whole liver; that the sublobular veins anastomose directly, and not through the medium of the intralobular branches; that the portal veins have no direct communication with each other, but anastomose by means of their interlobular branches; that the hepatic veins, like the other veins of the the body, proceed in a direct course to their termination in the cava; that the portal vein, accompanied by an artery, resembles an artery in its ramifications; that the larger hepatic veins, having longitudinal fibres in their coats, differ in structure from the portal vein; and that the blood contained in the liver after death is almost invariably found in the hepatic veins, the portal vein being usually empty.

The longitudinal fibres in the coat of the larger hepatic veins are similar to those in the coats of the iliacs and inferior cava, and to those which are occasionally seen in some superficial veins. Those of the iliacs and cava have been delineated by Senac, who says they are composed of muscular fibres. This opinion, which was adopted by Portal, is sufficiently refuted by the existence of similar fibres in the hepatic veins, which, being firmly connected to the substance of the liver, admit of no motion.

The hepatic veins in the *Seal* differ in many respects from those of any other animal I have examined. The intralobular veins at their exit from the lobules do not, as in other animals, terminate immediately in the hepatic veins: these vessels enter the hepatic-venous canals, where they unite into branches, which, like the vaginal branches of the portal vein, are connected by a fine cellular tissue, with which they form around the hepatic veins a cellulo-vascular sheath, precisely similar to that surrounding the branches of the portal vein. The structure of the two sheaths is similar, but their uses are different. That of Glisson's capsule has been explained; the capsule of the hepatic veins in the seal appears destined to admit of the muscular contractions of these vessels. The posterior cava in this animal forms at the back part of the liver a large sinus, in which the hepatic veins terminate, and which, according to Cuvier, "is connected with the power of diving, which these animals possess in a high degree." The external coat of the hepatic veins is composed of circular fibres, which in the larger vessels form a complete tunic. In the smaller vessels the fibres are arranged in the form of circular fasciculi, which are connected with each other by oblique intermediate fibres. All the fasciculi do not extend completely round the veins; some, dividing into two portions, unite with fibres from those above and below, and form other fasciculi. By contrasting the hepatic veins in the seal with those in the human subject, it would appear that the circular bands in the former are composed of muscular fibres. In man, the fibres are longitudinal; in the seal, they are circular: in the former, the vessels adhere firmly to the parietes of their canals; in the latter, they are loosely connected by the cellulo-vascular sheath in which they are inclosed. The existence of the sinus in which these veins terminate, and in which the blood accumulates during the act of diving, appears to indicate the necessity of a muscular power to propel the blood onward to the heart. Had the intralobular veins in the seal, terminated, as in other animals, immediately in the hepatic veins, these vessels would have been connected to every lobule forming the parietes of their canals, and their muscular contractions could not have taken place; the use of their sheaths is therefore evident, and different from that of the portal vein, hepatic duct, and hepatic artery. No circular fibres exist in the coats of any of the other veins of this animal.

In the *Porpoise* the hepatic veins are connected to their canals; no circular fibres are seen in their coats. Their external surface is reticulated, the ridges corresponding to the interlobular fissures, where the interlobular cellular tissue is continuous with the cellular coat of the veins. The mouth of an intralobular vein occupies the centre of each space circumscribed by the ridges.

In diving birds, Cuvier says, "all that portion of the vena cava inclosed in the liver is of very considerable diameter, and forms a kind of reservoir similar to that in the seal." I have examined some birds of this class, but have found no circular fibres in their hepatic veins.

Of the Structure of the Lobules. — The lobules constitute the secreting portion of the liver. Examined with the microscope, a lobule is apparently composed of numerous minute bodies, of a yellowish colour (imparted to them by the bile they contain) and of various forms, connected with each other by vessels. These minute bodies are the *acini* of Malpighi; his opinions respecting their structure and use are well known. Ruysch admitted the existence of the acini, and, more successful in his injections than Malpighi, he filled the minute vessels which are described by the latter anatomist as ramifying between these bodies; he thereby, probably, rendered the acini invisible, or less apparent than they present themselves in the natural state, in which they had been discovered by Malpighi, and he concluded that these minute bodies are composed of the terminal extremities of the vessels, with a certain number of which the ducts are continuous. Boerhaave attempted to reconcile the contending opinions of the two great anatomists. Ferrein successfully opposed these opinions; he demonstrated the tubular structure of the kidney, and was the first who asserted that several other viscera, the liver, spleen, and renal capsules, "sont un assemblage merveilleux de tuyaux blancs, cylindriqués différemment repliés." Mascagni says the liver is composed of cells, from which the minute biliary ducts arise, and this anatomist enters into a description of the various tunics of which these supposed cells are composed. To Muller, whose recent discoveries have thrown much light on the ultimate structure of glands, is due all the merit of the important discovery, that a gland is a duct with blood-vessels ramifying on its parietes. This anatomist asserts, from analogy rather than from actual demonstration, that the biliary ducts in the vertebrated, like those in some of the invertebrated animals, terminate in cæcal extremities, which present certain differences in the manner of their arrangement in the different classes. The foliated and pinnated appearances delineated in Muller's 11th plate, and displaying, according to this anatomist, the manner in which the terminal extremities of the ducts are arranged, appear to me to result solely from partial congestion of the liver, the foliated portions being composed of the non congested opposed edges of lobules, with the interlobular ducts, veins, and arteries, ramifying between them.

The portal vein enters the liver in all the vertebrated animals, in all of which the lobules are arranged around the hepatic veins, as I have described them in man. Each lobule is composed of a plexus of biliary ducts, of a venous plexus formed by branches of the portal vein, of a branch of an hepatic vein, and of minute arteries: nerves and absorbents, it is to be presumed, also enter into their formation, but cannot be traced into them.

The hepatic ducts, commonly so called, and their vaginal and interlobular branches, constitute the excreting portion of the biliary apparatus; they are also organs of mucous secretion, being furnished with mucous follicles: the secreting portion of the liver is also composed of ducts, which form a plexus in each lobule. These plexuses may be called the lobular biliary, or secreting biliary plexuses. The ducts composing them being exceedingly minute, and always containing bile, much greater difficulty is experienced in injecting them than in injecting the blood-vessels of the liver, even in the usual manner; and this difficulty is not so easily overcome as that occasioned by blood in the vessels, for the bile contained in the excreting ducts is propelled by the injection into the secreting ducts, from which it has no exit by other vessels, and consequently opposes the entrance of the injection. This process is, to a certain degree, facilitated by tying the portal vein and hepatic artery in the living animal, and thereby arresting the secretion of the bile. If this operation be carefully performed, the animal will survive several hours, during which time the ducts will discharge much of the bile they contained, and the liver will sometimes become almost colourless. The experiment will probably be attended with more success if performed a few hours after feeding the animal. After preparing the liver in this manner, I have frequently succeeded in partially injecting the lobules from the hepatic duct; I have also injected these bodies from the duct in the human subject, but with less success. Examined with the microscope, the injected interlobular ducts are seen dividing into branches, which, entering the lobules, divide and subdivide into minute ducts; these ducts anastomose with each other, forming a reticulated plexus. (Fig. 6.) If an uninjected lobule be examined, and contrasted with an injected lobule, it will be found that the acini of Malpighi in the former are identical with the injected lobular biliary plexus in the latter, and the blood-vessels in both will be easily distinguished from the ducts. The ducts forming the plexuses, when examined with the microscope, present very much the appearance of cells; and this appearance, which has been well delineated by Mascagni, probably induced this anatomist to consider the liver as an assemblage of minute cavities, giving origin to the ducts. The form of the lobules bears no relation to the arrangement of the ducts, the form of each lobule being always correspondent to the branches of the intralobular hepatic vein occupying the centre of the lobule. The coats of the lobular ducts, on which the blood-vessels next to be described ramify, constitute the proper secreting substance of the liver, as the coats of the cortical ducts of the kidney, and those of the tubuli seminiferi, constitute the secreting substance of their respective organs.

The left lateral ligament may be considered as a rudimental liver, in which this organ presents itself to our examination in its simplest form. From that edge of the liver connected to the ligament, numerous ducts emerge, which ramify between the two layers of peritoneum of which the ligament is composed. These ducts were discovered by Ferrein, but this anatomist did not ascertain their termination. "A' l'égard des vaisseaux biliaries, M. Ferrein en a observés de nouveaux, dont les uns reviennent du ligament gauche du foye, et qu'il a vûs quelquefois repandus sur la face inférieure du diaphragme." These ducts, the smallest of which are very tortuous in their course, divide, subdivide, and anastomose with each other. They are sometimes exceedingly numerous, two or three of them in such cases being of considerable size; some of them, as Ferrein says, frequently extend to the diaphragm, and ramify on its inferior surface. They sometimes extend only half way up the ligament, where they divide into branches, which, forming arches, return and descend towards the liver, anastomosing, or being continuous, with other ducts issuing from it. The spaces between the larger, or excreting ducts, are occupied by plexuses of minute, or secreting, ducts. I have injected the ducts on the inferior surface of the diaphragm, but have not succeeded in injecting them to their termination; we may however conclude, that, like those just described, they form arches, the branches returning towards the ligament, and being continuous with those ascending from it. Branches of the portal and hepatic veins, with arteries and absorbents, also ramify in the ligament, which, including between its layers a plexus of secreting and excreting ducts, with blood vessels ramifying on their parietes, admirably displays the structure of the liver. Ferrein speaks of other ducts: " d'autres reviennent de cette portion des parois de la veine cave, qui paroît hors l'échancrure sigmoïde du foye quand on le regarde par derrière, d'autres enfin reviennent des membranes de la vésicule du fiel." The inferior cava usually occupies a fissure at the back part of the liver; this fissure is frequently converted into a canal by a portion of the liver, extending from the lobulus Spigelii to the right lobe; frequently, also, the fissure is converted into a canal by a band, apparently of ligamentous texture, varying in width in different subjects. This band is, like the left lateral ligament, a transparent portion of the liver, containing ducts and blood vessels. In a preparation in my possession, in which the ducts in this band are injected, a few injected ducts are seen issuing from the right lobe and ramifying on the coats of the cava above the band. The umbilical vein is also contained in a fissure, which is frequently converted into a canal by the process of the liver, called the *pons hepatis*, extending from the *lobulus quadratus* to the left lobe; sometimes the two lobes are connected by a band only, which is similar in structure to that behind the cava. No ducts ramify in the coats of the gall-bladder. It is probable that Ferrein mistook the absorbents of the gall-bladder for ducts, this anatomist, probably, having injected some of the former vessels, as I have frequently done, from the hepatic duct: or Ferrein may allude to ducts which occasionally ramify between the liver and gall-bladder, and divide into interlobular branches, which enter the former, and which he may have removed* with the latter, and mistaken for ducts ramifying upon it. No branches of the hepatic veins ramify in the coats of the gall-bladder; and the absence of these vessels sufficiently proves the non-existence of ducts. The cystic veins are branches of the abdominal portal, and not of the hepatic portal or umbilical vein: they are therefore efferent, and not afferent, vessels, conveying blood from, and not to, the gall-bladder: it necessarily follows, that biliary ducts ramifying on the parietes of this receptacle would receive the materials of their secretion from arterial blood,—that of the cystic arteries. If in any case ducts should be found on the gall-bladder, I venture to assert, that branches of both the portal and hepatic veins will also be found; but the portal veins in such a case will be branches of the hepatic portal vein, will convey blood from the coats of the excreting ducts, and to the coats of the secreting ducts, and not from the gall-bladder. If ducts, arteries, and one set only of veins, terminating in either the portal or hepatic veins, should be found—and this is always the case, if Ferrein's assertion, that ducts ramify on the coats of the gall-bladder, be true—then would the bile of these ducts at least be secreted, beyond dispute, from arterial blood.

Branches of the hepatic artery and portal vein accompany the ligamentum teres; these veins convey blood to the hepatic portal vein, and must therefore be considered as separate branches of the abdominal portal system.

Of the Lobular Venous Plexuses.—The interlobular branches of the portal vein, surrounding the lobules on every side except at their bases, divide into branches, which, entering these bodies, form in each of them a plexus, the branches of which terminate in the intralobular hepatic situated in the centre of the lobule. This plexus, interposed between the interlobular portal veins and the intralobular hepatic vein, constitute the venous part of the lobule, and may be called the lobular venous plexus. Examined with a powerful microscope, the vessels constituting the plexus are seen converging from their origin at the circumference toward their termination at the centre of the lobule; they communicate with each other by smaller transverse branches, between which are seen minute circular, ovoid, or oblong spaces, occupied by portions of the lobular biliary plexus. (Fig. 7.) Examined with a less powerful microscope, the vessels of the plexus appear arranged in circles. The circular, ovoid, and oblong portions of the biliary plexus, seen between the branches of the venous plexus, are the acini of Malpighi. Müller has delineated the converging vessels of the plexuses in the liver of the squirrel; but this anatomist did not ascertain whether they were branches of the portal vein or of the hepatic artery. The venous plexus of one lobule communicates with the plexuses of the surrounding lobules by means of the intervening interlobular branches of the vena portæ, this vein thus forming one continous plexus through the whole liver. The converging branches of each plexus unite at the centre of each lobule, and form an intralobular hepatic vein, this vein having no communication with the corresponding veins of the contiguous lobules, except through the medium of the intervening plexus and portal veins. No branches of the hepatic veins are found in any other part of the liver; occupying the centre alone of each lobule, their only office is to convey the blood from the lobular venous plexuses, and not from the arteries.

In consequence of its double venous circulation, the liver is naturally in a state of sanguineous congestion; hence arises the great difficulty of making successful injections of the human liver: the plexuses may, however, be frequently well, but seldom equally, injected, and always with greater success from the portal than from the hepatic vein, the latter, and those portions of the plexuses immediately surrounding its intralobular branches, generally containing whatever blood may remain in the liver after death. The plexuses may be always injected with facility from the portal or hepatic veins, and the injection will pass freely from one vein into the other without extravasation, if the liver has been previously deprived of all its blood by the ligature of the portal vein and hepatic artery in the living animal.

Anatomists* have considered, that the free communications which exist between the two vessels obviate the difficulty which would otherwise arise in the circulation through the liver, from the want of power consequent on the presence of the two veins; and although the communications between these vessels appear, upon experiment, to be more free than those which exist between the hepatic artery and the portal vein, and between arteries and veins generally in other parts of the body, yet it appears that the arteries and veins in the spleen and kidney, and probably in all glands, communicate with equal freedom. The lobular venous plexus is best examined in the superficial lobules, but here again the human liver presents a difficulty, particularly in the adult, in consequence of the opacity of the proper capsule: the liver of the cat, and that of the smaller animals generally, appear to have no cellular capsule, and are consequently more favourable for this purpose.

The venous plexus ramifies on the biliary plexus: the blood circulating through it is composed of the portal blood, and certainly of that portion of the arterial blood which, having nourished the excreting ducts and supplied them with mucus, and having circulated through the vasa vasorum of all the vessels, becomes venous, and is received into the branches of the portal vein, by which, with the portal blood, it is conveyed to the plexus; and from this mixed blood the bile is secreted.

The vessels of the plexus ramify on, or as Müller says, between, the secreting ducts; they are not continuous with the ducts, as was imagined by Ruysch.

[The engravings referred to in the preceding pages will be given, with the conclusion of the paper, in our next number.]

[To be continued.]

OBSERVATIONS ON THE NATURE AND ORIGIN OF THE DISEASE CALLED

PLICA POLONICA.

BY GEO. WM. LEFEVRE, M.D.

Physician to the British Embassy, St. Petersburgh.

[Concluded from page 337.]

It is evident, to me at least, that there is a disease in some parts of Poland which does not exist in other parts; although the moral and physical habits of the people are the same in both. This disease I divide into real and artificial: the former exists in the proportion, perhaps, of one-tenth to the latter. I shall first describe the artificial—the manner of producing it, and its final termination. During my residence in Poland, I had no opportunity of witnessing a plica pass through all its stages, from the beginning to the end; but I saw several, at various periods of their progress.

The artificial plica is fomented, as I have observed, with the idea of producing a critical discharge, which will relieve the system of some *peccant* matter, to make use of the old phraseology. This disease, when produced by artificial means, is confined to the head; and I know of no instance where means have been taken to form this in the hairs of the scalp, that other parts of the body; have suffered naturally from the plica - nor have I ever heard of attempts havt ing been made to produce this complain in the axilla, or on the pubes. This may, in some measure, help our diagnosis between true and false plica: in the formation of the latter, nothing more is necessary than to allow the scurf and secretions of the scalp to accumulate. This is promoted by wrapping the head in flannel, which, keeping it warm, increases the natural secretions of the scalp. The hair, in the course of time, elongating, and not being combed straight, aided also by the twisting of the night-cap, or flannel, becomes plaited together in various forms and shapes, and the interstices fill up with the exudations which come from the scalp, and from the myriads of animals which breed there unmolested. We will not instance an example furnished by Kirby and Spence, where servants were employed all day in carrying them away from the head of their master by baskets-full at a time; but I have seen them numerous enough. In the course of time, this contact with the secretions, which are probably of a morbid nature (for this means of forming a plica becomes derivative to a body already diseased), destroys the bulb of the hairs, and the whole mass, which now resembles a bird's nest (and a dirty one, too), forms so much extraneous matter. If unmolested, however, and left for a sufficient time, it falls off finally in a mass, "pushed from its stool" by the young healthy hair which sprouts up underneath. It is seldom allowed to finish its career in this manner. The patient watches the arrival of the new hair, and, as it increases, he cuts off piecemeal the old plica; or as I have more frequently seen the operation performed, a lock of the old hair is inclosed between two pieces of wire, and these are tightened daily, till it drops off.

I saw this process employed by a Jew: the only case I met with among the Jews. A singular fact is observed with respect to the nails, when the young hairs begin to shoot, and which I witnessed in the same individual; for his was originally a case of true plica, but, as in most instances, was changed in its real and natural character by artificial means. The nail, in these cases, no longer grows from the root: it becomes of a horny nature, and opaque, and finally shelves off, leaving a young nail underneath.

This, then, is the general way in which the plica takes its final departure, and woe to him who wishes to expedite the process too rapidly. Sudden death, blindness, palsy, apoplexy, deafness, idiotcy, are some of the ills which are said to follow invariably a sudden removal of the disease by excision.

In the history of this disease, as hitherto related, it is evident that there is nothing very extraordinary in its formation and progress—nothing to warrant the existence of a particular virus; nor, indeed, any morbid state in the hairs themselves.

If all the cases upon record are of the same nature as the foregoing, then, indeed, we may conclude, with Davidson and later French writers, that there is in reality no such disease as plica polonica.

If we are to believe the testimony of such as can have no interest in warping the evidence which nature presents, there is a disease of a different character, arising spontaneously, and not originally produced by artificial means, though too frequently changed in its appearance by the latter. It is that which occurs in the higher classes of society, and which attacks other parts of the body than merely the hairy scalp. Most wonderful cases are upon record of the extent to which this complaint proceeds.

The hair of the head is related by several to have been long enough to train upon the ground—to be three, four, and even six feet in length, and to extend laterally in proportion.

The beard is said, by Alibert, to have reached the same dimensions; and Dr. Corona knew a Polish hermit whose beard trained upon the ground when he lay in bed.

"Jean Hain rapporte l'observation d'une femme qui avoit les poils du pubis affectés d'une plique longue d'une aune et demie; il ajoute que la personne était obligée de la rouler autour de ses hanches, pour empècher qu'elle ne traînat par terre."

These are what I imagine to be cases of real plica, and similar cases are rare in occurrence comparatively with the artificial plica already mentioned; still there are sufficient instances upon record to allow of the authentication of the disease. I could not, during a six months' residence in Cracow, find an opportunity of witnessing this affection in its early stages. All the cases which I saw, in private families and in the public hospitals, were decidedly manufactured; but I knew those in high life, of all ages and of both sexes, who had suffered from the disease. The case of the Jew was a case of real plica, but it was only when the disease was far advanced that I saw it. I must consequently describe the appearance which the real plica assumes at its commencement from what others have told me, not being able to do so from personal observation.

We find in the descriptions which we read of it, a great variety of statements, as regards the changes in the structure of the hairs. Some speak of a glutinous matter exuding from the filament, if cut asunder; others have found blood issue from the divided ends, and the cutting of the hair itself is said to be productive of great pain. Others declare that, with all the assistance of the microscope, they could not discover any change in the structure of the hair itself, but merely an exudation from the scalp at the roots of the hair.

All this discrepancy of opinion arises from partial observations, from confounding the false with the real plica, from studying the affection at certain stages of its existence only upon different parts of the body. I shall quote the description given of this disease by a very popular writer, who has, nevertheless, in several particulars been misled by partial information.

"The individual hairs begin to swell at the roots, and to exude a fat slimy substance, frequently mixed with suppurated matter. Their growth is at the same time more rapid, and their sensibility greater, than in their healthy state; and notwithstanding the incredulity with which it was long received, it is now no longer doubtful, that where the disease has reached a high degree of malignity, not only whole masses of the hair, but even single hairs, will bleed if cut off, and that, too, throughout their whole length, as well as at the root."

We cannot coincide in the truth of every part of this quotation. It is true that the roots of the hair become extremely sensible; but the filament is not so itself, nor is pain produced by cutting it throughout its whole length. With respect to the bleeding from the ends of the divided filaments, I found so much contradiction in the evidence to be procured upon the subject, that I could not convince myself that such was the case. It is more probable, I think, that the scalp becomes diseased and very sensible, and that blood issues from the roots of the hair when they are pulled out; but I do not think that the individual hairs ever become injected throughout their whole length.

The hair is not, as it was long supposed, an inorganic substance; it possesses vitality, although slightly comparatively with other parts of the body; and derangements of the general system may influence the hair individually. The degrees of vitality and sensibility are not the same in all textures at all times. Inflammation changes an almost insensible healthy, into an acutely sensible diseased membrane; so it may be with the hair, which, possessing little vitality or sensibility in a natural state, may acquire both under diseased influence.

In referring to the authors who have written upon the hair, we find some curious cases, in which its colour even has been changed by fevers, and even by passions and affections of the mind.

Rudlein relates the circumstance of a patient's hair becoming yellow, after a fit of the jaundice.

Dr. Tourron, of Thoulouse, instances the case of a woman, thirty-six years old, who was attacked with a brain fever, and whose hair and eye-brows got white during her convalescence, but returned to their original black colour when they were quite restored.

M. Alibert mentions the case of another woman, whose hair was fair, but after a severe illness and accouchement it became black.

The effects of fear and terror in changing the hair to white, has occurred in more than one instance in modern times. Such effects could not be produced upon inorganic matter; and we find that the centre of each hair is perforated by a fluid, which imparts to it vitality. If the hair be organized, and this seems placed beyond doubt, it may be subjected to the diseases of organized structures, and the roots of the hair may be penetrated by diseased fluids secreted from the scalp, and which eventually produce disease in the hair itself. It is probably the escape of some of this diseased secretion from the hair, when divided near its root, which has given rise to the opinion of its bleeding.

This applies, therefore, to that state of the system which is found to occur in that species of plica which is formed originally by diseased secretion, and is not produced artificially. This affects all parts of the body where the hair abounds, whereas the artificial plica is confined to the head, where alone it has been fomented.

A minuter examination will discover the difference between the true and artificial plica, as cognizable in the structure of the hairy filaments. The bulbs of these are enlarged from the commencement in the true plica, and the disease affects them individually. The hairs become enlarged from the increased quantity of fluid injected into them, or from some change in the nature of their proper fluid, produced by disease. It is from this circumstance that the hair, if not meddled with, nor allowed to be compressed, so as to form a mesh, sticks out like a pole: hence the popular name *koltun*. If situated upon the head the disease is easily recognized from the false plica: the roots and bulbs of the hair are found diseased as they issue from the scalp itself; whereas in the bird's nest plica, the turban plica, the medusa plica, all of which are produced by art, there is a considerable length of sound hair between the scalp and the plica; and if a single hair be separated from the mass, it will be found in a healthy state.

The interlacing and matting of the hair are not necessary to characterize a true plica, but this is often produced by the same means as are used to form an artificial plica. Hence to a superficial observer both appear the same; hence the existence of the true plica has been called in doubt, because it is similar in appearance to the artificial plica; and hence truth and error become confounded in one common mass.

Let those who are still sceptical upon this point, and who do not believe in the existence of the true disease, answer this simple question. Have they ever known an artificial plica formed in the axilla, or on the pubes? What name do they then give to that disease which affects the hair upon these parts, in the manner which we have described?

In recapitulation, therefore, we must observe, that we do not believe the plica polonica to be an imaginary disease, resulting only from filth; neither do we believe it to be contagious, and capable of propagation by inoculation; but we believe that it is a secondary affection, a species of critical evacuation, which becomes a source of irritation, and produces disease in the hairy filaments.

That the greatest proportion of what are called plicas are the result of art, is undeniable; and it is equally so, that the generality of observers, in passing through the country, have been satisfied with unravelling these false plicas, and have supposed that they have unravelled the whole mystery.

It remains to inquire into the causes of the real disease, in doing which, the manufacture of so many artificial ones will be easily accounted for. In endeavouring to discover the real cause of this malady, we shall refer to the works of an author who has thrown much light upon a very obscure subject, and has, like most original writers, incurred the charge of eccentricity and exaggeration: we refer to Dr. Macculloch's work on fevers and neuralgia, arising from the influence of Malaria. That many affections are, in their causes and characters, difficult to trace and distinguish, is the result of every man's practice. It is not *nosological disease* which is the most difficult to treat; there are a variety of uneasy affections and sensations which baffle us all in our practice: hence the tyro becomes astounded and humiliated at the very onset of his career, to find himself, with all his learning, unable to account for the cause of so common a complaint as the toothache. His Cullen's Nosology stands him in bad stead for a practical guide; he enters upon the wide manor, and finds but little legitimate game to exercise his skill upon; he is assailed by a multitude of complaints which he has neither read of in books, nor heard of in the lecture-room. It is not the tyro alone who has to struggle against these difficulties; it is, perhaps, the octogenarian, going down to his grave disgusted with the idea that a life has been devoted to a profession of which he feels that he knows so little.

Dr. Macculloch has endeavoured, in his work, to pour the oil and wine into his wounds, and to apprize him, even at the eleventh hour, that there is a balm in Gilead. As a sweeping clause, the Doctor considers "all fevers which are not produced by contagion, to be the result of malaria." He dwells at some length upon the direct and indirect effects of this poison upon the system, as it is evident in producing intermittent and remittent fevers, and as it is more obscure in its action, as producing a great variety of anomalous sensations and complaints, all of which, however, may be reduced to a simple cause, and will be found to have a remittent fever for their basis, and malaria for their excitement.

From the general effects of malaria upon the system, producing remittents and intermittents with all their obscurities and anomalies, Dr. Macculloch proceeds to local affections, which he attributes to the same cause. These are extremely numerous, and comprise all those local pains and aches which occur in the body, and are inexplicable both to the patient and the practitioner. They come under the head of tic douloureux when they affect the more tangible nerves, or their obvious branches—as in the face, the arms, the fingers, knees, legs, toes, &c. There are other local affections, which, although not so easily traced to a direct nervous filament, are equally included in this list, because the expansion of a nerve upon a muscle is equally susceptible of this disease, which the Doctor denominates rheumatic neuralgia, intermittent in its character and produced by malaria.

It remains only to determine whether the plica polonica is not to be added to the number of these obscure affections.

The locality of this disorder offers every ground for regarding it as the offspring of malaria. It is found almost always in marshy situations, and on the banks of rivers. The more common effects of malaria are found most prevalent among the inhabitants of the marshy swamps where plica is endemic. I never met with so many cases of ague as during my stay in Poland, and this of a severe and fatal kind. Rheumatism is as prevalent as agues, and affects every part of the body, and becoming chronic in the limbs, renders them useless. It attacks the head most severely, and tic douloureux in the face is of frequent occurrence. Rheumatic ophthalmia and amaurosis, in a gouty diathesis, are of common occurrence. Mr. Russell, speaking of the plica, says, "it is generally preceded by violent headaches and tingling in the ears; it attacks the bones and joints, and even the nails of the fingers and toes, which split longitudinally. If so obstinate as to defy treatment, it ends in blindness, deafness, or in the most melancholy distortions of the limbs. The most *extraordinary part of the disease is its action upon the hair.*"

In this last phrase, the author states an opinion which has the more weight as it comes from an unprofessional man, unbiassed by any theories. The plica is here stated to be a general affection, the state of the hair a symptom only.

Paralytic affections are very frequent in the same unhealthy situations.

If all these constitutional symptoms, which are said to precede the formation of a plica, are, as Dr. Macculloch informs us, attributable to malaria, I do not see why the affection of the hair should be excluded from the list. The same poison which operates in producing an affection of the scalp may certainly influence the roots and bulbs of the hair. It is, indeed, singular, that he who discovers this protean cause of so many complaints where it is difficult for others to trace its influence, should not himself have discovered it here, where it is so much more ostensible.

If it be asked why malaria should produce this disease in one country and not in another, it may be replied, that many circumstances, at present inscrutable, influence the effects of this poison upon the system. Why should it attack the testicle in one, and the kidney in another? Why the great toe or the little finger? Why the supra-orbitary nerve or the portio dura? Why produce a slight ague or a deadly remittent? Why a dysentery or a cholera morbus?

To such questions we can only oppose a set of unmeaning terms, as predisposition, endemic fomites, habits of body, difference of constitution, climacteric influence, which answer the same purpose in medical language as capacity for caloric or latent heat, do in chemical; or as length without breadth does in mathematical definition.

We have as much right to conclude that there is some peculiarity in the climate or in the soil, or in the habits of an individual, which causes malaria to operate in producing koltun in one situation, as that it shall produce a rheumatic ophthalmia or a fever in another; for the effects of diseases in general are not so much to be studied in their own peculiar and specific characters, as in the various circumstances under which they operate.

It may be inferred, I think, from the preceding observations, that the custom of the people in promoting plica has arisen from the relief afforded to their pains and aches by the generation of a true plica. They have observed that when the hair became thickened, and assumed an appearance of a stake, long and tapering towards the extremity, so the affection of the system which preceded this state began to disappear, and consequently whenever they are attacked with any severe rheumatic complaint in the head or limbs, or when their eyes become diseased, they immediately set about manufacturing an artificial plica. This produces a less speedy relief to their complaints than when a plica is the natural result of a critical discharge from the scalp, but it nevertheless produces a good effect from its slowly derivative action. The enveloping the head with flannel, and the other accessory means which time effects, keep the scalp in a state of fermentation.

From the whole, therefore, we conclude that the constitutional affections of the system are the produce of malaria, and that the local affections are generated indirectly by the same cause. The plica is therefore produced by a morbid secretion from the parts in which the hairs are imbedded, which penetrates the hairy filaments and produces disease; but this, which becomes the exciting cause of a local disease, is the critical termination of a constitutional malady. This natural process, which affords relief to the system, and becomes, in fact, the cure of painful affections, is imitated by the people so universally upon all occasions where they suffer from pains and aches, that the number of false plicas is in immense proportion greater than those produced by the efforts of nature in the process of critical discharges, and this accounts for the uncertainty and controversy which have so long existed regarding this complaint.

With respect to a primary affection of the hair occurring spontaneously, and not preceded by any general symptoms of morbid action in the system, I must have my doubts. I made many inquiries of the medical men with whom I associated, and I could never find any one who had seen the plica as an original affection commencing in the hair itself. I see no reason, however, to deny the possibility of such an occurrence. I shall not speak of the means employed to cure this affection: my sole object has been to endeavour to explain the causes of so much contradiction in the evidence stated regarding the nature of this singular complaint.

September 1834.

M. BRESCHET'S OPERATION FOR THE RADICAL CURE OF VARICOCELE.

To the Editor of the Medical Gazette.

Sir,

It has hitherto been confessed, that, amongst the affections for which surgery possesses no radical cure, varicocele holds a foremost place: for in the present improved, and, if I may so speak, refined state of surgical practice, it would be needless to combat the various proposals of castration, excision of the dilated vessels, &c. &c.; their ephemeral reputation sufficiently proves their inexpedience. Nor can I view with much confidence the plan adopted by M. Amussat—viz. ligature of the spermatic and scrotal arteries; although that mode of treatment be said, in at least one instance on record, to have been attended with a favourable result.

The honour of increasing the domain of curative surgery, by a radical treatment of varicocele, appears to have been reserved for M. Breschet. This distinguished surgeon has, in fact, devised a plan, simple as it is ingenious, by which the most inveterate scrotal and spermatic varices are completely and expeditiously removeable. I shall proceed to lay before your readers a brief account of this plan, accompanied with a case in which it was employed. I make choice of the first case in which M. Breschet operated, in order that the attendant difficulties of a first trial may not be concealed, and, at the same time, that the timid may not imagine them greater than they really were.

The patient was a servant, æt. 29, robust, and of strong constitution, who, so early as the age of 15, had perceived a difference in the conformation of the testicles. Some years afterwards, a tumor and varicose dilatation of the left scrotal veins became evident. The patient was frequently obliged to give up his ordinary work. He was admitted into the Hôtel Dieu, May 27, 1833.

The diagnosis of the affection was easily established; the usual symptoms of spermatic and scrotal varicocele existed in a very marked manner. Many of the dilated veins of the scrotum equalled in size the auricular finger; and a fasciculus of vessels, united so as to form a considerable mass, originated at the cauda of the epididymis, from which point they followed the course of the cord to the external abdominal ring. The vas deferens was recognized by the characters which are peculiar to it.

The usual palliative treatment was prescribed, and its use continued during a month. The veins of the cord and scrotum, during that period, became slightly diminished in size, but the increase of volume which followed the erect position clearly indicated that the treatment had been, indeed, but palliative. Pressingly urged by the patient, M. Breschet thought of putting into execution a mode of treatment for a radical cure, the idea of which he had previously conceived. The principle upon which it was based was the obliteration of the affected vein *by compression*. The compression was at first produced by small iron pincers, the pressure of which was always equal, and resulted from the simple elasticity of the branches of the instrument. But the difficulty of using these pincers, their occasionally too great pressure, and the impossibility of padding their metallic surfaces, induced M. Breschet to use in their stead others so formed as to permit the part destined to come in contact with the scrotum to be covered with soft linen, or leather, and the pressure to be graduated at will, by means of screws.

The instruments were at first applied on the veins of the scrotum, at the extremity of two of the most voluminous of them; care being taken to leave no considerable anastomosis between the two points compressed. Their presence determined slight local pain, and the trifling inflammation which followed was combatted by emollients, resolutives, and repose. On a second application, the pain was much less considerable; the graduated compression caused a thinning of the skin, and, bringing the two opposed portions of that membrane into contact, produced a dry eschar, solid, thin, and transparent, resembling parchment. Its detachment was followed by an ulceration of much less extent, and less painful, than in the former instance. These ulcers were perfectly cicatrized in a few days; they produced no hæmorrhage. The vein remained full of clotted blood; this blood was gradually absorbed; no inflammation took place; and subsequently all traces of the existence of the vessel had disappeared. The different veins of the scrotum were successively treated in the same manner.

This success was, however, incomplete. The spermatic veins still remained. The application of the instrument to them was not so easily effected. They were surrounded by a thick skin containing fat, and the vas deferens was in their immediate vicinity. The small size of the nerves and arteries prevented their being drawn aside. The accidents to be apprehended were pain, violent inflammation, formation of a deep eschar, and denudation of the cord. For this new application the instruments were modified, so as to offer a larger surface to the part affected, and to present a curve which should prevent the pressure of the fold of the skin. The vas deferens was excluded. The pain on the application was considerable, but removed by local means. The instruments were kept on seven days; one placed as near as possible to the external ring, the other towards the inferior part of the cord. They determined an inflammatory swelling of the parts comprised between the two pincers, and produced a superficial eschar of the part on which they immediately acted, combined with an adhesion of the two opposed cutaneous surfaces. The consequent ulcerations were cicatrized in less than fifteen days; before which time the cord had lost its knotty feel. There, however, still existed, at the cauda of the epididymis, a mass of vessels extending as far as the place of the last compression. Two other pincers were applied; one immediately before the testis, which was drawn backwards, the other two inches higher up. They were kept on the same number of days as the preceding, and followed by some pain, inflammatory swelling, and eschars of the integuments.

It deserves remark, that the inflammatory symptoms, after this last operation, were more violent than before, and less promptly removed. The instrument placed above the testicle produced a perforation of the skin, and a solution of continuity resembling that produced by a seton. The inflammation and swelling were considerable; an abundant oozing of a sero-purulent matter existed during fifteen days, from the ulcer. These accidents were got under by emollient cataplasms and repose, and at the same time the varicose mass which had existed at the bottom of the scrotum was converted into a small tumor, in which no trace of vessels was discoverable. The disappearance of the swelling soon permitted an examination of the testicle, which had been long lost amid the vast fasciculi of vessels. Its nutrition was found to be unimpaired, and its volume equal to that of the opposite side. The cure was perfect at the end of November.

The length of time occupied in the cure of this case, is by no means to be attributed to the method employed in its attainment, but to the various difficulties encountered in devising and having made the instruments employed, and to the caution necessary in the first trial of an operation of which the ultimate results could not, *à priori*, be fixed with any degree of certainty. M. Breschet has since operated in numerous cases, both in public and private practice, with perfect success, and obtained in a much less time. I have myself seen two cases treated by him at the Hôtel Dieu, in which the cure was perfect in from four to five weeks.

It is exceedingly important that the compression be more than sufficient to induce an adhesive inflammation, with occasionally slight suppuration, of the coats of the veins; such an effect would not only be insufficient, but might be injurious, from the propagation of the inflammation along those coats, or from the purulent infection of the blood. The pressure should be forcible enough to destroy the life of the part, but in a gradual manner. The mortification is confined to the part immediately acted on.

I should have wished to subjoin a sketch of the instrument, but unfortunately could not procure one as a copy.

I have the honour to be, sir,
Very respectfully yours,
WALTER H. WALSHE.

November 26, 1834.

BIRTH OF A DOUBLE FŒTUS.

To the Editor of the Medical Gazette.

SIR,

I FORWARD to you a singular case of the birth of a double fœtus, which has lately occurred in my district, should you deem it worthy of notice in your excellent journal. I am aware that cases similar to the following are recorded by authors, but happily to be met with rarely in practice.—I remain, sir,

Your obedient servant,
S. W. KIDGELL.

Pangbourn, Berks,
December 3, 1834.

On the 23d of November last, the husband of a female pauper called on me with a request that I would immediately visit his wife, who had suffered many hours under violent labour pains, and was attended by a midwife. She resided at a small village about four miles distant. The woman was 38 years of age, well formed, the mother of seven children, and had always enjoyed the most perfect health. In my absence, my assistant, (Mr. Webb), visited the case, and when entering the house was informed by the midwife in attendance that the uterus had acted very powerfully during the night; that the membranes had ruptured some hours; and that the delivery was interrupted by some unusual presentation. On examination, the os uteri was found to be fully dilated, the womb contracting very forcibly, and almost alarmingly. The head of one fœtus had partially protruded naturally, and the arm of a second was discovered to have presented. Notwithstanding the protrusion of the head, and the very forcible contractions of the uterus, for some time no progress was made; therefore the hand was gradually, but with difficulty, introduced into the vagina, with a view of ascertaining the impediment to delivery, when it appeared that some monstrous formation had taken place. By gentle and gradual traction, however, the breech and lower extremities were brought down, speedily after which, without manual interference, the second fœtus was expelled, connected to its twin by an inseparable union from the lower margin of the sternum to the pubes. They were females; still born; of full size and weight. Their heads were of ordinary shape; presenting nothing remarkable, except their entire resemblance to each other; and their extremities were perfectly formed. The funis and placenta were single in every respect; the former not of unusual thickness, and about twenty inches in length, terminating in the umbilicus at the central and inferior part of their junction.

I should have felt more satisfied had I been permitted to have inspected their viscera, whereby my case would have been rendered more complete, but to that measure, I regret to say, the parents decidedly objected.

A slight degree of hæmorrhage followed the expulsion of the placenta, which was checked without difficulty; no untoward symptom followed, and the poor woman is now fast recovering.

THE PRESENT *CRISIS* WITH REFERENCE TO MEDICAL REFORM.

To the Editor of the Medical Gazette.

SIR,

ALLOW me again, though after a long silence, to address you on Medical Reform; the passing day is, it seems to me, of great interest. The recent transactions at Brighton are not interesting to nations only, or to statesmen; their operation on the macrocosm of European politics will doubtless be pregnant with mighty consequences, begetting feelings and impulses in quarters and directions in which society has been either sluggish, or too slowly advancing, in this and other countries. But in the little world of medical politics their influence will likewise be felt, and will be, as I trust, efficiently, though indirectly, operative, through the whole frame and constitution of our profession.

What was the position of the legalized medical authorities before the dismissal of the Whigs? This; that by inquiries entered into by a Parliamentary Committee, granted contrary to their wishes, and animated, they feared, by a spirit hostile to their vested interests, and to a considerable extent by the evidence of their own members, and even partisans, they have been proved incapable of adequately protecting the public or the profession; the former from ignorance or imposture, the latter from unlicensed competition; so that their diplomas or licenses are, practically speaking, proof unequivocal of little more than the expenditure of certain sums of time and money in the purchase of titular or parchment honours and privileges; and that, consequently, extensive organic and other changes, demanded by the spirit of the times and the wants of society, and hitherto denied to be just or necessary, and obstinately refused by the institutions complained of, were at length about to be undertaken by the paramount authority of parliament. The occurrence, therefore, so much dreaded, and so often and earnestly deprecated, viz. that of a reform *ab extra*, appeared impending, and awaiting only the lapse of a few months for its completion; and the decayed or defective institutions lay humiliated and discouraged, unwilling to accept, yet powerless to prevent, the expected innovations.

But now that the reform coach, to use H. B.'s phrase, is in good earnest in danger of an upset, and drivers and guards, and probably passengers also, all about to be spilt together, and the Whigs out of place, and parliament apparently (see Spectator, November 29th) on the eve of dissolution, what is the position of the medical governing bodies? Why, assuming a dissolution, it is, I should say, greatly altered for the better; for the dissolution will, legally speaking, convert Mr. Warburton's documents, one and all, into so much waste paper, value at most twopence per pound; and the Colleges will be re-established *in statu quo ante bellum*, precisely as before the war of witnesses, commenced and conducted with such signal perseverance, and, as I believe, purely public-spirited views, by the hon. member for Bridport. And with all the power of reform they ever had, they now have weighty reasons, not before so correctly estimated, for no longer subjecting themselves to the charge of a denial of justice, or of a bigoted attachment to withered and sapless distinctions; and are, I speak of the members individually, animated more thoroughly at the present moment than at any former period, with a disposition to meet all reasonable demands, and remove all proved abuses.

Thus Mr. Warburton's inquiries, however insignificant in a parliamentary sense after a dissolution, will yet not have been without important, and even precious fruits. Not only have they tended to soften the opposition to innovation on the part of the parties in possession of place and privilege, by proving incontrovertibly that defects and grievances do exist, sufficient to justify to some extent dissatisfaction and complaint, but they have, I conceive, likewise beneficially operated in another way, viz. by diminishing the bitterness of crimination and assault on the part of the excluded, by relieving them from the charge of groundless and petulant discontent, and releasing them from all anxiety as to the ultimate result, by unequivocally enlisting in the cause of medical reform the love of justice and sound sense of the general public; so that Mr. Warburton's labours have, in point of fact, greatly narrowed the debateable tract, by defining it; have lowered the temperature of feeling of the combatants; and brought each more nearly to that calmer tone and temper which is an indispensable preliminary to an amicable settlement of disputed claims.

Now assuming the neutralization of Mr. Warburton's labours, at least in a legal sense, by a dissolution, and assuming that the evidence procured by that able gentleman would have enabled him to make out an irresistible case for reform, let us inquire what is the policy pointed out, alike by good sense and good feeling, to the Colleges of Medicine of Pall-Mall East, Lincoln's-Inn-Fields, and Blackfriars. It is plainly, I think, this—viz. to make, as soon as may be, all reasonable *concessions* to their respective subject bodies; to make both eligibility and the elective franchise more nearly, if not wholly, co-extensive with membership; to abridge or abolish all privileges hitherto attaching, directly or indirectly, to accidents of birth, education, opinion, &c. &c.; to abandon the practice of stigmatizing, in any way, particular branches of the healing art, even the least of whose subdivisions is respectable if practised by men of character; to raise the standard of education, not, however, by multiplying certificates, which, whatever else they prove, are quite incapable of proving the main point—viz. the application of the student's mind to his appropriate studies, and the attainment of the requisite amount of real knowledge and available acquaintance with disease, its signs, causes, and remedies; but by strict examination, catechetical and practical, of the aspirant to professional honours and emoluments. The adoption of measures founded on the views and principles just glanced at, is plainly, I think, the policy most becoming the wisdom and patriotism of the Colleges; and now that they have had their cards, as I suppose, restored to them, and an opportunity afforded of retrieving past errors, and of recovering alienated attachment and winning golden opinions, I am sanguine in my expectations that the sound judgment and kindly feeling which, as I know, characterize many leading members of each College, will not fail to shew themselves, and that their possessors will not neglect to avail themselves of the sunny hour, and by timous and graceful concessions do honour to themselves, and to the state some service.

The "GAZETTE" is supposed, and I believe with good reason, to possess much more influence with the medical authorities than any of its contemporaries; and I beg leave to propose to the Editor the query whether he might not materially advance the good cause, by devoting a few of his eloquent leaders to the subject of *spontaneous* reform. To his superior literary ability, and ample means of elucidation, I would gladly consign the task of stimulating zeal, guiding inquiry, pointing out the best means, and generally aiding those in office and authority in their endeavours to enlarge the basis and consolidate the disunited masses of the professional edifice. Now that for the second time they seem to have the game in their own hands, I cannot believe that the many eminent and influential gentlemen who declared before the Committee that reform was, to a considerable extent, safe, just, and desirable, will go back from their own statements, and, by allowing the present opportunity of *spontaneous amendment* to pass by, expose the dignified bodies to which they belong to another such badgering as they lately experienced. Justice, self-love, published professions, all conspire in calling on them for exertion. Difficulties there are none of importance, saving such as always beset indolence and timidity, however favourable the occasion or righteous the cause. The sluggard's cry and the coward's ever is, "There is a lion in the way."

Your obedient servant,
CIVIS MEDICUS.

London, December 1, 1834.

ANALYSES AND NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

Outlines of a New System of Philosophy; being a View of the System of Sciential Medicine, or Medicine (and all Human Knowledge) as proveable as Geometry. By THOMAS EDEN, Member of the Royal College of Surgeons.

WE have all heard of the sailor, who, being mightily pleased with the panorama of Captain Ross's expedition, said to his neighbour, "You call it *beautiful*, do you? I call it *philosophy*, by G--!" Mr. Eden puts us in mind of that sailor; he calls his book "philosophy," but we fear with not half so good reason as the honest tar did the picture. As a specimen of the *philosophical* spirit in which our author writes, we extract the following:—

"It is the blind, fantastical, ignorant, and idiotic cant of the age, that diffidence and modesty are the inseparable attendants on, the characteristics of, true wisdom; that 'a little learning is a dangerous thing;' that 'shallow draughts' of truth 'intoxicate the brain;' 'drink deep or taste not,' are the first precepts of teachers, the great lesson of the moralists, the measured tattle of the poets, and the revered doctrines of all those who never 'tasted' a 'shallow draught' of real learning—who do not know what wisdom is, who never drank the living waters of the well of truth. The inculcation of such doctrines, together with the precept that 'it is your duty to bow respectfully to all those who have obtained the respect of others,' is the curse which every father throws upon his children—the well-adapted contrivance by which every pupil is kept a *bigger fool* than his teacher; it teaches diffidence—takes away all manly dependence on self—deprives, at once, the whole human race of all individuality, making every man a drivelling non-entity; the evasive 'we' I so constantly meet with, leaving to mankind no one *advancer;* not a single defender of the truth; but making every child of Adam a time-serving worshipper of any many-headed fool that looks frightful.........The concoction and the diffusion of these doctrines are the crafty *doings of the devil*—the master-work of Satan, by which he, under the semblance of the amiable, cozens man to abandon reason—to forsake the guide which his Creator gave him when he withdrew himself."

But the reader may ask, what is all this *system* about? and what is *sciential* medicine? We can only answer, that the latter appears to be an epithet of the author's invention, to distinguish *his* medicine from all other kinds—those being "acephalous," or "born without brains," which are not *sciential*. Let us hear himself:—

"When searching for a difference more *audible* than between 'sciential' and 'scientific,' the total inability of your science to reason, to decide, or to prove, offers me, and justifies my taking, the word 'acephalous.' That science of medicine, then, which is now resident in the heads of the heads of the profession, I (in contra-distinction to 'sciential') call 'acephalous medicine,' for it has no reason, it has no brains in it."

As to the *system*, we must candidly confess it is too deep for us and our powers of penetration. We have spent some time upon it, endeavouring to catch a glimpse of scientific meaning any where about it, but have utterly failed. We were certainly fools for our pains: why did we not stop short when we came to the following *definition?*

"A science, or a portion of knowledge, or a truth, of the individual, or of the few, or of the many, or of the multitude, is of, or belonging to, science, knowledge, truth."

We print the sentence (?) *literatim et punctatim*, as it is in the original; and we apprize the reader that beauties of the same sort may be found *passim* throughout the volume.

By the way, we observe a note, in which it is said—

"If any professor who wishes his authority to be put against sciential medicine, will send his name to me, I will be answerable that the public have the benefit of it; but, N.B. he must pay the postage, for there is no man in medicine whose mere authority is worth twopence."

Now we have as little inclination to squander twopence in this matter as Mr. Eden, still less to take the trouble of sending him our name; but we beg, at the same time, in the most unqualified manner, to protest against his "*sciential* medicine," and to describe his book as one of the most stupid, impertinent, and grossly ill-written productions, that we ever remember to have fallen into our hands.

Traité d'Anatomie Descriptive, rédigé d'après l'ordre adopté a la Faculté de Paris. Par HIPPOLYTE CLOQUET. *Edition Belge, augmentée de Notes, extraites des ouvrages de Soemmering, Meckel, &c.; d'un Traité des Preparations Anatomiques; et de l'Anatomie des Regions, d'après Blandin. Avec un Atlas de* 15 *Planches in folio.* Dulau.

THIS work is now completed, and forms a handsome octavo volume, accompanied by fifteen plates, in which all the chief objects in anatomy are well represented. Space is admirably economised throughout; and when we consider the additions made to the original, which are both select and valuable, the atlas included, we cannot help recommending this as the best, at the same time that it is by far the cheapest, text-book for anatomical students who are familiar with the French language.

MEDICAL GAZETTE.

Saturday, December 13, 1834.

> "Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."
>
> CICERO.

PRESENT POLICY OF THE COLLEGES.

WHAT OUGHT IT TO BE?

AN interesting and important question just now arises, regarding the actual state and prospects of medical reform. In the event of a dissolution of parliament, which, we suppose we may say, is now certain, abundant scope is given for speculations of all sorts, relative to the effect of that occurrence on what has already been done, and on the probable fate of this among other objects of reform to be agitated under the auspices of the new ministry. The evidence, notwithstanding its "hair-breadth 'scape" from flood and fire, by the instrumentality of Mr. Dermott—who, by the way, ought to have been presented ere this with some civic memorial for his invaluable services—and notwithstanding the precious attentions and fostering care bestowed upon it by certain needy speculators, who think it worthy of being committed to posterity in the shape of sixpenny pamphlets—may still go the way of all waste paper. This intelligence, we dare say, will be very afflicting to some parties; but we, who have all along contemplated the matter dispassionately, have no great regrets about it. It seemed to us that Mr. Warburton—the only member who could be got to take any trouble in the affair—gave himself a great deal of unnecessary labour, for no earthly purpose that we could understand, except to afford to all who chose to avail themselves of it, the opportunity of grumbling *ad libitum*, and of acquainting the nation with what they conceived to be the proper objects of reform. Months after months have thus been wasted—the public money squandered—and in the end a mass of manuscript and printed documents collected, which it would require the best efforts of some "heaven-born minister," in addition to the honourable member for Bridport, to digest, and reduce to a manageable compass. There was much valuable material among it, we admit; but it was wofully disfigured and obscured by the superfluity of trash with which it was encumbered: the weeds choked up the flowers—the tares encroached upon the more wholesome grain. One thing, however, has been certainly gained by the transaction—the feeling of the necessity for a *movement* has been inculcated: to stand or sit still, as the corporations have hitherto done, even in spite of the better judgment of their individual members, is now no longer possible; the impetus has been given, and "*marche! marche!*" sounded in their ears, in a tone scarcely to be disobeyed.

But let what will be the next proceeding on the part of the legislature, an interval of delay must take place, in which to be idle, on the part of the Colleges, were highly criminal. That interval may be turned to the best account. It is a season in which much that ought to be done may be done with no mean grace; and in which much that ought not to be done may be effectually prevented. But our valued correspondent Civis Medicus has, we perceive, anticipated us on this head. Bold as the measures were which were advocated by him not very long since, and energetically as he would have them put in execution, he can clearly see in the present turn of affairs the opportunity which offers itself for effecting changes far more temperate and beneficial—for making far more "graceful concessions"—than could have been well proposed under the late arrangements. For the nature of those changes and concessions, we would refer the reader to the letter of our correspondent, in a preceding page.

The friends of misrule—the advocates of destructive alterations in the things that be—will no doubt lift their voices on seeing any preparations for "setting houses in order"—for adopting, in fact, the very measures which they themselves pretend to desire. But the babble of the factious should only provoke contempt. We trust that no clamour from such a quarter will have any influence in retarding the work that should immediately be begun. There is at present no compulsion—no force operating from without, save that of public opinion; and in yielding to that, which, by the way, is very far short of the opinion of the violent few, there need be no sacrifice of honourable principle, nor of grade. It is never too late to take up the practice of what is right, and those who resolve to fall into the proper path, may safely do so without risking any character except that of consistency, or rather of obstinacy, *in error*. Reform, besides, is the order, the fashionable virtue, of the day; from the peer—nay, the premier—to the peasant, in some shape or other, it is the test or the watchword of patriotism. It would be a strange anomaly indeed, if, in such a state of things, a couple of chartered bodies, hitherto held in honour, as the source of much distinction in the profession—with the means, too, of ample and efficacious change for the better within their grasp—should alone sit still in the general movement. Will it be wonderful, if such should unfortunately be the case, that neither regard nor consideration should attach to parties conducting themselves so indolently,—if not vexatiously?—that when the time comes (as come it must) for material alterations in those bodies, suited to the circumstances of the period, no respect will be paid to the suggestions of the parties, but that they will be met with that cold scorn which they will have so richly merited?

ALL PRIME MINISTERS "ONE FACULTY" MEN.

When Lord Grey was prime minister, the Editor of the Lancet told us that he was the fittest statesman in the world to carry through the great cause of medical reform. So fully was our contemporary convinced of this, that he was indignant at any surmise of the contrary; oracularly observing, "not one word of caution from the press is required by Earl Grey."

When Lord Melbourne succeeded, we were informed that the profession "had reason to rejoice," because he was even more fit than the noble Earl who preceded him, and "displayed *exalted* *firmness* in prosecuting an inquiry into medical abuses."

The Duke of Wellington was next called to his councils by the Sovereign; and when it was supposed that *he* would be prime minister, we were assured that he was one " the excellence of whose tactics in civil government have been as generally admitted as has been the brilliancy of his genius in war;" that some hold him to be " more than a moderate amender of acknowledged abuses;" and, in short, that " there is no ground for believing that the Duke of Wellington will be less desirous of removing medical abuses than was the noble Viscount."

But now Sir Robert Peel is premier; and this, too, has been provided for. " Where?" asks our consistent and honest contemporary, " where was the honourable Baronet when the motion of Mr. Warburton was brought forward? He was present, assented to the proposition, and was immediately appointed a member of the medical committee; and of that committee the honourable Baronet is still a member." True—very true; but then there is one little circumstance omitted in the narrative; namely, that Sir Robert went to the committee some days after the sittings had commenced; that he objected to the manner in which they were conducted; that his views not being acceded to, he left the room, *and never entered it again*—a most potent indication, certainly, of his favour for the " one faculty" system.

Thus we have the satisfaction of knowing that, as regards medical reform, we are in a most satisfactory state: Lord Grey was good—Lord Melbourne better—the Duke of Wellington best—and Sir Robert Peel is " *most* best"—a very radical in medical politics. There is more in all this than is dreamt of in your philosophy, if we could but find it out; but till the true cause be discovered, and till Wakley's surreptitious edition of the parliamentary evidence cease to fall still born from the press, we advise him at once boldly to adopt for its motto—

> "And oh! in Downing-Street should Old Nick revel
> England's prime minister—then bless the d—l."

ANATOMY ACT—INTERFERENCE WITH VESTRIES.

One of the greatest difficulties in the way of any satisfactory plan for the distribution of subjects for dissection, is the jealousy with which the teachers look upon each other. Thus, whatever seems likely to benefit one is opposed by another on this very ground; and we have heard of instances in which threats have been held out, *by medical men*, of pasting placards in the vicinity of workhouses, for the purpose of creating a tumult among the poor, rather than suffer a rival to gain his point. Until the parties concerned can come to a better understanding, and cease in their efforts merely to oppose each other, it is vain to hope for any change capable of affording general satisfaction.

Of the public displays of professions and acts apparently irreconcilable to each other, we must say that by Professor Quain is the most striking. This gentleman has written two long letters against the interference of the schools with the Boards of particular parishes in which they may have interest; and yet, in the second epistle, containing what he himself calls an " essay upon exertion," he (probably through inadvertency) admits that a recent and successful " exertion" has been made by himself to retain exclusive possession of St. Andrew's. The bodies from the parish in question have hitherto been exclusively given to the London *University*. We knew that an attempt had been made very lately to have other schools admitted to a share in the distribution, and we thought that this application had succeeded, and that Dr. Quain, however reluctantly, was nevertheless a *bonâ fide* practical supporter of the non-intervention system. But in this we were mistaken; for we have since learnt that he not only opposed, but opposed with success, the appropriation of bodies from the parish of St. Andrew's to any school except that of Gower-Street. He speaks very bitterly of the attempt to effect a distribution, and then adds—"we were not, however, the persons to be tripped up so readily, even though taken unawares—we bestirred ourselves accordingly;" and then he emphatically adds, that the vote in his favour "remains undisturbed." Thus it would appear, that while he writes in the Lancet against teachers interfering with the parish authorities, so as to prevent a general distribution of the bodies, his practical comment on the doctrine is so to "bestir" himself as to induce the parties in question to stultify his own principle. We would not willingly do Dr. Quain an injustice, but we cannot see any other light than the preceding in which, upon the shewing of his own letters, this manifest inconsistency can be viewed.

We cannot, however, exactly understand why individual lecturers should be so anxious to obtain, and others to prevent them from obtaining, the supply from particular parishes, because, according to the present arrangement, it does not appear that they receive such bodies *in addition* to their share in the general distribution. The advantage must therefore be very trifling, unless any of the teachers so circumstanced neglect to make the proper returns, and thus appear to have had fewer bodies than is really the case. But this would be attended with such a heavy penalty, if discovered, while to avoid discovery would be so difficult, that (even setting aside all restraint from feelings of honour), we can scarcely take it into our estimate as a possible contingency. Finding that the returns of the Inspector were open to examination, we have availed ourselves of the opportunity afforded us, and perceive that the numbers in some of the principal schools, up to last Saturday, were as follow: — Bartholomew's, 20; Guy's, 18; Webb-Street, 18; University, 18 It does not, therefore, appear to us, that there is any evidence whatever of Dr. Somerville having shewn a preference for any particular school[*].

SUPERIORITY OF SMALL HOSPITALS.

To the Editor of the Medical Gazette.

Sir,

Although I had been told that the learned Professor of Physic, at the London University, had, by the aid of "the schoolmaster," arrived at the conclusion (since his resignation of St Thomas's Hospital, where there are but 500 patients) that it is only in a small hospital, containing from forty to eighty beds, that the student can hope to attain any real knowledge of his profession, and that he had, in fact, stated this to his class, in his introductory clinical lecture, still my mind was too obtuse at first to believe that the deduction necessarily followed from the premises. I learn, however, that his excellent and equally disinterested colleague, the Professor of Materia Medica, has arrived at a similar conclusion, which he also has taken occasion to manifest to his class. I feel, therefore, that I should be wanting in duty if I did not urge on you the propriety, nay, the necessity, of impressing on the public generally a fact so new and so important. As the London University Hospital has certainly the advantage of being the smallest of the small among the hospitals of this metropolis, so is it, of consequence, the best adapted for teaching the treatment of disease. In the firm hope and belief that quackery of every description will never cease to flourish in this world generally, and in this town in particular, I am, sir,

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[*] In our leading article upon this subject last week, p. 344, col. 2, line 35, for *not* read *but*: the erratum is important, as it affects the sense.

Your humble servant,
A CONVERT TO DISINTERESTED OPINION.

December 6, 1834.

[If our correspondent will turn to vol. ix. p. 98, of this journal, he will find that the learned professor last alluded to devotes three columns of our smallest type to the elucidation of an opposite doctrine. He then lectured at a *Dispensary*, and said, "I am most anxious, indeed, to clear from your minds, gentlemen, the prejudices which have been so assiduously attempted to be impressed upon the student, against the utility of DISPENSARY practice." And again: "If you suppose that the results which you witness in the HOSPITAL are to follow the administration of the same medicines prescribed for similar disease in private practice, *you will soon find yourselves wofully mistaken!*" This may seem a riddle, when taken along with the more recent declaration in favour of any hospital small enough to afford a sufficiently limited field of observation; but the reading of it, nevertheless, lies in few words—the *Valetudinarium* was not then begun.—ED. GAZ.]

PATHOLOGICAL LECTURES,

Delivered in King's College, London,

BY

PROFESSOR MAYO, F.R.S. &c.
Surgeon to the Middlesex Hospital.

VI.—*On Diseases of Joints.*

1. *Of the Diseases of Synarthroses.* — Joints are of two kinds. In one there is no discontinuity; the bones which enter into the joint are united by an intervening layer of fibro-cartilage, and the articulation is strengthened externally by ligamentous bands, which stretch from bone to bone across the uniting medium. Joints of this kind, or *synarthroses*, exist between the bodies of the vertebræ, and between the pelvic bones; their pathology will form the subject of the present observations.

It will be best to consider, *in limine*, the habitudes under disease of the separate tissues which concur in forming these joints. The tissues are three: bone, fibro-cartilage, ligament.

1st, The kind of bone, which enters into the composition of synarthroses, with a thin external crust, and a close and strong cancellous structure, has great vascularity and vitality.

a, It unites readily when broken.

b, It is liable to atrophy, in the two forms of rachitis and mollities ossium.

c, It is readily absorbed through pressure made by a growing tumor of the adjacent soft parts.

d, It is susceptible of inflammation. When inflamed, it rarely becomes more hard and solid, which is so frequent an occurrence in the cylindrical bones. It rarely becomes the seat of abscess. It frequently becomes softened, from absorption of its earthy matter, when it presents one of two appearances—either the internal periosteum highly vascular, and the cancelli filled with brownish gelatinous fluid — or with a less degree of vascularity, the cancelli filled with yellow curdy matter. Either of these states is eventually followed by caries, or ulceration; which ordinarily commences on a surface of the diseased bone, not in its interior, and is liable, but not likely, to be attended with partial necrosis.

2d, The fibro-cartilages in the synarthroses are generally not homogeneous; or there is every variety among them, from the sacro-iliac joint, in which the medium of union is nearly uniform, a layer of elastic substance, between cartilage and yellow ligament in structure,—and the pubic synchondrosis, where the exterior layers are more dense and fibrous than the central part,—to the fibro-cartilages between the bodies of the vertebræ, of which the exterior part, consisting of strong, white, silvery fibres, approaches to common ligament, while the interior part, a tissue *sui generis*, is of a soft and almost pulpy consistence, yet gliding, without any abruptness of transition, into the texture of the outer and ligament-like portion.

a, Fibro-cartilage, when torn, is susceptible of reparation. In fracture of a vertebra, the adjacent fibro-cartilage is generally ruptured; if the patient lives, it unites just as bone unites. The texture of the cartilage of a rib is perhaps too dissimilar to that of intervertebral substance, to be used in illustrating the properties of the latter; but I made some experiments upon the union of the costal cartilages, which I may take the present opportunity of mentioning. The cartilage of a rib was divided in several animals, which were killed at different periods afterwards. I found the initiatory stages of reparation which had been set on foot to be exactly similar to those in bone. The cellular membrane surrounding the divided part was first consolidated into a firm capsule, which contained the cut ends of the cartilage. This consolidation was produced by the infiltration of lymph; an exudation of the same substance formed a medium of direct union between the ends of the divided cartilage. The reparatory capsule gradually became converted into a texture resembling cartilage. As, in the reparation of bone, the callus changes into cartilage, and then ossifies, subsequently to which direct union of the broken ends by bone takes place, so, in the restoration of a costal cartilage, the exterior thickening becomes cartilaginous, while the direct union of the divided ends is still by lymph alone. Mr. Stanley has two preparations of cartilages of the ribs in this stage of the process of union.

b, Fibro cartilages are susceptible of absorption upon pressure being made upon them by the growth of tumors, but in a much less degree than bone. Accordingly, in the growth of an aneurism of the descending aorta, the intervertebral fibro-cartilages are found to be absorbed superficially only, while the bodies of the vertebræ between them are deeply excavated and eaten away.

c, The intervertebral fibro-cartilages probably participate in that weakness, or mode of atrophy, through which, in young persons, the vertebral column becomes laterally bent.

d, Fibro-cartilages generally, it may be presumed, are susceptible of inflammation. The only instance, however, in which I have found this demonstrable, occurred in the semilunar cartilages of a knee-joint. Ulceration of the cartilages covering the bones had taken place, with high inflammation of the adjacent surface of the bones, and of the capsular synovial membrane. The semilunar cartilages (the knee having been injected after amputation) were red with the vermilion, swollen, softer than natural, and when divided, shewed, upon the section, extremities of cut vessels.

e, Ulceration and suppuration may occur in fibro cartilage. In a case communicated by Mr. Howship to Sir Benjamin Brodie, in which, upon dissection, no remains were found of the intervertebral cartilages between the tenth and eleventh dorsal vertebræ, nor between the third and fourth lumbar—these intervertebral spaces being filled with pus, and the opposite surfaces of the vertebræ being carious, but only to a small extent—the *central part* of the intervertebral cartilage, between the ninth and tenth dorsal vertebræ, had been completely absorbed, and pus was found in its place. Externally to this the concentric layers of elastic cartilage were entire, though somewhat altered from their natural appearance.

f, Portions of fibro-cartilage sometimes become detached in the progress of ulceration; they are then dead parts—irritants to the parts adjoining. It is conceivable that they may sometimes cease to be alive before their adhesion to the neighbouring living substance is destroyed.

3d, The affections of ligament will be more fully considered in the next lecture. It is sufficient to mention at present that the ligaments are readily repaired when torn; that they are susceptible of atrophy and elongation—of inflammation, softening, ulceration, sloughing.

The diseases of the vertebral column admit of being classed under two heads—atrophy, namely, and inflammation. To the first head belong weakness of the spine in young persons, the yielding and curvature in rachitis, and the softening in mollities ossium. Of the nature of these cases I have briefly spoken in a former lecture. Under the second head may be considered those instances which are usually classed together by the term spine disease. In introducing this principle of classification, however, I am bound to state that there is not evidence enough to authorize me in asserting, as a thing proved, that all cases of spine disease are produced by inflammation, although I strongly anticipate that this will be found to be the fact. Sir Benjamin Brodie, who has contributed in so great a degree to the elucidation of the diseases of joints, does not appear to admit this view of the subject. After drawing an important distinction, which originated, I believe, with him, between cases where the vertebræ are first affected, and cases in which the intervertebral substance is the part primarily diseased, he notices, *as a third division*, "another order of cases, but of more rare occurrence, in which the bodies of the vertebræ are affected with chronic inflammation, of which ulceration of the intervertebral cartilages is the consequence." My own impression is, that all these affections begin with inflammatory action; sometimes affecting a single bone; sometimes two or more adjacent bones; sometimes the whole extent of the vertebral bones; sometimes affecting the fibro-cartilages alone; sometimes attacking both systems at once:—but in every case leading eventually to ulcerative disease of both, that affords evidence by the greater ravage it has committed of one or other tissue, as to which was primarily affected.

The two following cases exemplify commencing inflammatory disease of the vertebral column:—

A young lady, when wheeling a heavy garden-chair, was conscious of having strained her back, but the sensation went off. In a few days, however, she found that the least exercise brought on pain in the lumbar portion of the spine. This was followed by pains in the left thigh and leg, which subsequently extended to the right. Two months after the complaint began, I saw this patient: there was no irregularity of the spinous processes of the lumbar vertebræ, or tenderness on pressing the adjacent region; pain only, and a sense of weakness, were present. By perfect quietude, and preserving the horizontal posture almost constantly, joined with the use of caustic issues applied over the seat of pain in the loins, this patient, in a year, was entirely restored.

A young woman was admitted an in-patient of the Middlesex Hospital, with the following symptoms. She suffered constant pain in the whole length of the vertebral column, which, when lightly struck, communicated a sensation of soreness through the bones. There was no projection of the spinous processes at any point: her right side, and right arm and leg, were deficient in sensibility, and were weaker than the left. There was some incontinence of urine. She was kept in the recumbent posture, was cupped on the most tender parts of the spine, and had issues made with the moxa: calomel was likewise given to touch the mouth. By a long pursuance of this treatment she eventually recovered.

I cannot better exemplify the conditions into which the vertebral column falls under spinal disease, than by extracting from Sir Benjamin Brodie's work, on the Diseases of Joints, the following account of three dissections:—

On examining the body of a young man, "no remains were found of the intervertebral cartilage between the fourth and fifth dorsal vertebræ, and the opposite surfaces of these two bones were consumed by caries to some extent, but more upon the left side than upon the right. The intervertebral cartilage between the eleventh and twelfth dorsal vertebræ had also entirely disappeared, and the opposite surfaces of these bones were in a state of caries; but this had not extended itself sufficiently to occasion any sensible loss of bony substance. The intervertebral cartilages between the third and fourth, fifth and sixth, seventh and eighth, tenth and eleventh, dorsal vertebræ, and also that between the twelfth dorsal and first lumbar vertebræ, were all found in a perfectly natural state towards the circumference, but in the centre they were of a dark colour; and on the surfaces, towards the bones, they, as well as the bones themselves, were in a state of incipient ulceration, but without any appearance of pus having been secreted. All the other intervertebral cartilages were in a natural state, and the bones of the vertebræ every where had their natural texture and hardness. On laying open the theca vertebralis, the membranes of the spinal marrow were found adhering together, behind the space between the fourth and fifth dorsal vertebræ."

"On examining the body of a young woman, ætat. 19, the bodies of the three or four inferior lumbar vertebræ were found preternaturally vascular, and of a dark and almost black colour; but they retained their natural texture and hardness. The intervertebral cartilages were in a natural state, but the body of one of the vertebræ was superficially ulcerated, for about the extent of a sixpence, on one side, towards the posterior part. A large abscess communicated with this ulceration, and occupied the situation of the psoas muscle of the left side, extending downwards to the groin."

"On examining the body of a man, ætat. 45, the cancellous structure of all the dorsal and lumbar vertebræ was found of a dark red colour, and softer than natural, so that they might be cut with a common scalpel, or even crushed by the pressure of the thumb and fingers. The opposite surfaces of the bodies of the second and third lumbar vertebræ, and of the cartilage between them, at the posterior part, were extensively destroyed by ulceration. Anteriorly, the bones and the intervertebral cartilages were entire, and the latter was in a perfectly natural state; but the bones throughout were of a dark and almost black colour."

The features of spinal disease are obvious and necessary consequences of the morbid changes which have been described.

The vertebral column, attacked with inflammation of the bones or fibro cartilages, becomes the seat of sensations of weakness, pain, and tenderness.

The bony or cartilaginous substance of the vertebral column, being absorbed in front, causes the spine to bend forwards, and the undiseased bony arches to project backwards.

The vertebral column, being weakened by absorption of one or other of its constituents, is liable, on any sudden violence, to give way suddenly, and so to become suddenly bent at the ulcerated part. In the majority of instances, the curvature takes place very gradually.

The spinal marrow, being either compressed by the flexure of the vertebral column, or irritated by contiguous sympathy, diminution of sense and motion of the lower part of the frame, with spasms, and pains of the legs, and incontinence of urine, and constipation of the bowels, are liable to follow.

Finally, as another consequence of contiguous sympathy, there are liable to occur in the adjacent cellular tissue extensive formations of matter, which point either in the loins or at the groin, under the names of lumbar or psoas abscess.

It is found by experience that lumbar and psoas abscesses rarely occur except in connexion with disease of the vertebræ. To this connexion of disease the attention of the surgeon is at once directed, whenever matter is found to point in the lumbar region or the groin. When such an abscess has taken place, it commonly marks an advanged stage of spine disease; but it is sometimes possible, even at this period, by appropriate remedies, to relieve at the same time the disease of the vertebral column and the abscess which it has occasioned.

Disease of the pelvic joints is of very unfrequent occurrence. At the time of labour, an affection occasionally takes place in these joints, which is sometimes distinctly inflammatory, while at other times it bears the character of simple absorption of the fibro-cartilage. I witnessed an instance in which, after labour, an abscess formed behind the symphysis pubis, which was followed by a sense of weakness and giving of the pubic joint, which lasted several weeks, but gradually went away. Cases of this description are, I believe, far from uncommon. In others, the sacro-iliac joints are principally affected; there is no suppuration, but extreme weakness at these joints, which lasts many months. The patient is obliged for a long period to keep the recumbent posture; and then, and afterwards while recovering strength, derives remarkable comfort, and a sense of support, from bandages round the pelvis.

The following case, which was under my care, exemplifies commencing disease in the sacro-iliac synchondrosis, brought on by external violence.

A gentleman was riding in Hyde Park, when his horse reared, and fell backwards, bearing him to the ground. He was lifted by those around, when he found himself capable of walking, with assistance. I saw him a short time after the accident. The only part bruised was the integument covering the back of the sacrum, and more to the right side than the left. There was no fracture that I could ascertain—nothing but the bruise; and, as it afterwards appeared, a strain of the right sacro-iliac joint. The patient could bear the ilium to be pressed in any direction, and could, as I have mentioned, both stand and walk. In the evening considerable pain came on; he was cupped upon the hip, and experienced relief. The following day the cupping was repeated. After a month, during which this patient had kept his room, and the pain had nearly left him, he went, for change of air, to Richmond, when a child accidentally touching his foot, as he lay on a sofa, he drew up the limb suddenly. Upon this he experienced a sensation which he described to be like displacement of the bones at the right sacro-iliac joint; and he fancied he recollected that at the time of the accident he had felt a similar sensation: but certainly neither then, nor at this time, did pressure upon the ilium, in a direction to strain the sacro-iliac joint, bring on this sensation, or cause any thing like sensible motion of the joint. The pain now became gradually very severe, and extended down the limb, in the course of the sciatic nerve.

It was a year and a half from the occurrence of the accident before this patient had recovered. In this period many remedies were tried: those which were most beneficial were, strict observance of rest, and the application of caustic issues over the joint. When by these means the pain had been entirely subdued, cold sea-bathing rapidly restored his strength.

PRIZES FOR BOTANY,

PROPOSED AND ADJUDGED BY THE SOCIETY OF APOTHECARIES. 1831.

[An appeal has been made to us relative to the late decision of the botanical prizes; and from what has been stated to us, on very respectable authority, some of the unsuccessful candidates have reason to complain. The examination, it seems, is twofold—written and oral. The gentleman who obtained the first prize, it is admitted, was the best answerer in writing; but not to such a degree as to counterbalance his very inferior oral answering. It is suggested that more weight should have been attached to the latter ordeal—which is, in fact, the practical, and perhaps the more valuable part of the examination—it being quite possible to be made up for the other part by mere book knowledge. We will not enter into a detail of the particular merits of the answering: but some of our readers may perhaps be glad to see the list of questions proposed to the candidates on the occasion.—Ed. Gaz.]

Questions for Written Answers.

1. What are the more ordinary forms assumed by vegetable tissue?

2. Are the various modifications of this tissue separated by well-defined limits, or are they found to pass into each other?

3. What is the structure of the cuticle, and of what nature are those bodies called stomata which appear upon its surface?

4. Are you acquainted with any organs destitute of cuticle?

5. Do the ascending and descending axes of a plant differ anatomically?

6. Of what is the medullary sheath composed?

7. What are meant by medullary rays?

8. Is the presence of buds essential to the generation of wood?

9. Are the cellulares wholly destitute of spinal vessels and tubes?

10. What are the essential functions of a leaf?

11. In what respect do the leaves of the cellulares differ from those of the more perfect plants?

12. On what grounds is the theory which derives the various parts of a flower from the leaves to be supported?

13. What are the effects produced by etiolation?

14. What is a bulb?

15. What is the nature of the tuber in the potato, and how is it distinguished from a rhyzoma?

16. On what do the various forms of leaves depend?

17. Do petals differ anatomically from leaves?

18. What is the nature of that kind of inflorescence called a spike, and what would it become if its axis were depressed?

19. What is the nature of a cyme; and if its general axis were elongated, what would result?

20. To the axis of what kind of flower is the term torus applied?

21. What is a perfect flower?

22. What is a multilocular fruit?

23. What are the essential parts of a seed?

24. What kind of æstivation is of the most frequent occurrence in the polypetalous corolla?

25. The Linnean classes, and on what founded?

26. The Linnean orders, and on what founded?

27. What are the primary sub-divisions of the vegetable kingdom, according to the system of natural affinities; and what are the chief anatomical differences in those divisions?

28. What are the prevailing numbers amongst the two first sub-divisions of the vasculares?

29. Is the presence of albumen universal in any group you are acquainted with?

30. What are the functions of the cotyledons, and do they appear to be necessary only to such plants as derive their nourishment from the earth?

31. What is the Linnean class and order of iris, and the natural family to which it belongs; and how does that differ from hemodoracea and amyryllidæ?

32. —— colchicum and natural family; and how does that family differ from smilacea and liliacea?

33. —— narcissus; and how is the family distinguished from liliacea?

34. —— daphne and natural family; and by what characters is this family separated from proteacea?

35. —— digitalis, and its natural family?

36. —— atropa? Distinguish the genus from hyoscyamus, and the family from digitalis.

37. —— menyanthes, and natural family? Distinguish the genus from the rest of its order, and how separated from apocynea?

38. —— cinchona, and natural family; and how distinguished from caprifolia and apocyma?

39. —— carum? Add the structure of the fruit and seed, and the names of the more poisonous plants of the order.

40. —— helleborus, and natural family; and how is that family separated from trollius?

41. —— citrus, and natural family; and how separated from meliacea?

42. —— acacia, and natural family; and how is it distinguished from most of the other orders?

43. —— croton, and natural family; and what is the structure of the fruit and seed?

44. —— piper, and natural family; and are they with or without albumen; and by what means is the family distinguished from urticæ?

45. —— juniperus, and natural family? What is the nature of the fruit, and what are the peculiarities of the structure in the reproductive organs in this family?

COMPARATIVE IRRITABILITY OF THE RIGHT AND LEFT PORTIONS OF THE HEART.

M. Castel lately gave an account, in the Academie de Médecine, of some observations made by him and M. Amussat, concerning the much greater supply of nerves to the right than to the left side of the heart; whence the former preserves its irritability so much longer than the latter. M. Hippolyte Cloquet supported this view, and mentioned that the right portion of the heart receives eight or ten nervous branches, while the left is supplied with no more than four or five: a fact already noticed by Scarpa, and Walter of Berlin. —*Gaz. des Hôp.*

ABORTION EXTRAORDINARY.

FŒTUS VOMITED BY A BOY.

A Greek journal, the *Soter*, of the 31st August last, contains an account, drawn up by Dr. Ardoin, of a fœtus vomited by a boy, named Demetrius Stamatelli, a native of Syra. M. Ardoin was called in to attend the patient, who was suffering from pains of the stomach and bowels. The symptoms were so serious as to threaten the boy's life. However, the Doctor ventured on an *emetico-purgatif*, consisting of castor oil, an ounce; syrup of coraline and syrup of ipecacuanha, half an ounce each; exhibited in a pectoral decoction by way of julep. Violent cough and vomiting were produced, in the course of which the young Demetrius threw up the aforesaid fœtus. It is described as an embryo of from forty to fifty days: the head and one arm well formed, but, in lieu of the lower extremities, the body contained in a sheath, which runs as a cord to the *placenta*. The boy recovered, and the phenomenon has been regularly put up in a bottle. M. Ardoin has of course taken care, by the presence of witnesses, to assure the curious and to satisfy the sceptical that there has been no mistake.—*Abridged from the Gaz. des Hôp.*

MANSLAUGHTER BY DISPENSING IMPROPER MEDICINE.

In a case which recently happened in France, of three children being killed by the negligence of a pharmacien and the ignorance of his pupil, who gave corrosive sublimate in place of calomel, ordered in a physician's prescription, sentence has been passed on the accused. Estienne, the pharmacien, is fined 600 fr. with costs; Brandilly, the pupil, to be imprisoned a month; and both to make up between them the sum of 2000 fr. as damages, payable to the father of the children.

MEDICAL STUDENTS IN PARIS.

The inscriptions for the present season, up to the 15th November, have been 2519. The entire number of students is reckoned at 3500.—*Gaz. des Hôp.*

LITERARY INTELLIGENCE.

In course of publication, at Brussels, *Cours complet d'Histoire Naturelle Médicale et Pharmaceutique*; appearing in Parts. To form, when complete, two 8vo. volumes, with an Atlas of 150 plates.

APOTHECARIES' HALL.

LIST OF GENTLEMEN WHO RECEIVED CERTIFICATES DEC. 11, 1834.

Henry Hayward, Aylesbury.
Anthony Dolce, Aylesbury.
Charles Goodwin, Norwich.
John Hughes, Hanrwst.
Charles Stokes, London.
Wm. Thomas Dalby, Bow, Middlesex.
Edward Henley Finley, London.
Charles M. Dermott, London.
William Jones, Henley in Arden.
Joseph Blackshaw, Stockport.
William John Gage, Shefford.
Henry Elsegood, London.

WEEKLY ACCOUNT OF BURIALS,

From Bills of Mortality, *Dec.* 9, 1834.

Abscess	7	Inflammation	125
Age and Debility	157	Bowels & Stomach	22
Apoplexy	27	Brain	15
Asthma	60	Lungs and Pleura	31
Cancer	8	Insanity	5
Childbirth	19	Jaundice	2
Cholera*	32	Liver, diseased	22
Consumption	253	Locked Jaw	2
Convulsions	98	Measles	41
Croup	8	Miscarriage	5
Dentition or Teething	21	Mortification	10
Diarrhœa	4	Paralysis	7
Dropsy	47	Small-Pox	30
Dropsy on the Brain	37	Sore Throat and Quinsey	1
Dropsy on the Chest	1		
Epilepsy	1	Spasms	8
Erysipelas	1	Stone and Gravel	2
Fever	52	Thrush	4
Fever, Scarlet	30	Tumor	2
Fever, Typhus	9	Venereal	1
Heart, diseased	7	Worms	1
Hernia	1	Unknown Causes	162
Hooping-Cough	59		
Hydrophobia	2	Stillborn	40
Indigestion	3		

Increase of Burials, as compared with the preceding week . . . } 1070

* The great increase in the number of burials inserted in this week's Bill of Mortality, has arisen from several of the clerks of large parishes having withheld their reports till the close of the year; from the same circumstance is to be imputed the seeming increase of deaths by cholera.

METEOROLOGICAL JOURNAL.

Dec. 1834.	Thermometer.		Barometer.	
Thursday . 4	from 40	to 51	30 16	to 30·14
Friday . . 5	29	45	30·07	30 03
Saturday . 6	30	50	30 00	30.02
Sunday . . 7	41	57	30 06	30·07
Monday . . 8	39	47	30 06	30·13
Tuesday . . 9	31	45	30 42	30 36
Wednesday 10	29	47	30·15	30 30

Prevailing wind, S.W.

The 4th cloudy, except the evening; the morning and evening of the 5th very foggy; the 6th, 7th, and morning of the 8th, cloudy, with rain at times on the two latter days: the 9th generally clear; rain on the morning of the 10th, otherwise generally clear.

Rain fallen, ·425 of an inch.

Notice.—Dr. Turnbull's paper on "Aconitine" has been received. We cannot give it insertion, and have therefore returned it to our publishers.

W. Wilson, Printer, 57, Skinner-Street, London.

London, December, 1834.

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LECTURES ON THE DISEASES OF THE CHEST,

In the course of which the Practice of
PERCUSSION AND AUSCULTATION
IS FULLY EXPLAINED,

Delivered at the London Hospital,

BY THOS. DAVIES, M.D.

LECTURE XIII.

DISEASES OF THE PARENCHYMATOUS STRUCTURE OF THE LUNGS.

ŒDEMA PULMONUM.

WE now arrive at the consideration of Œdema Pulmonum.

By œdema pulmonum we mean an infiltration of serum into the pulmonary texture. This disease was first noticed by Albertini, and was afterwards pretty fully described by Barrere, Physician to the Military Hospital at Perpignan, in his "Observations Anatomiques," published in 1753.

This affection has often been confounded with hydro thorax, but we shall hereafter shew you that by the latter term we mean an effusion of serum into the bag of the pleura, while this is an effusion of serum into the parenchymatous substance of the lung. Both may arise from the same cause, but this is the anatomical difference between them.

Morbid Anatomy.—In cutting into an œdematous lung, serum immediately flows from the section, the quantity varying very considerably, so that only a small portion may escape, or there may be a pint, or a quart, or even two quarts. This serum is usually colourless and transparent, but sometimes of a slight fawn colour; and according to the duration of the disease it is more or less spumous: thus, if the disease be recent, the secretion is always mixed with a considerable quantity of air; if chronic, it contains scarcely any. The weight of the lung is increased, and it does not subside upon opening the chest. The lung still crepitates in the hand upon compression, because there is still a certain quantity of atmospheric air present. It also pits upon pressure, like an anasarcous limb. You will sometimes find that the blood-vessels which supply the organ are almost exsanguineous; they are colourless, and nearly empty, and the lung itself is generally of a pale grey or yellowish tint.

The spongy texture of the viscus is never altered in this disease; it may always be seen after a certain quantity of serum has flowed from the incisions; but when the lung is entire, it is difficult to distinguish the air-cells, in consequence of the fluid which fills them diminishing their transparency. The increased secretion is evidently contained in the interlobular cellular tissue, as well as in the air-vessels.

If the œdema be recent, it is always, as I have already stated, very spumous, which I apprehend arises from the fluid hardly having had time to discharge or dislodge the atmospheric air contained in the cells. If the œdema be of long duration, you will find that the serum flowing from the section of the lung is not spumous; and I presume that this arises from its having had sufficient time to displace the air. A short period before death it would appear that a certain quantity of serum is deposited in the lung, except in cases of great marasmus; so that you will frequently find, on making a post-mortem examination, œdema of the lung, combined with sanguineous cadaveric deposit, and these deposits are always found in a position relative to that in which the body has been placed. Thus, if it be placed on the back, then they occur at the posterior part of the lungs; if on the face, at the anterior part; and if on the side, laterally;

shewing evidently that the position of these fluids depends merely upon their gravitation.

Symptoms.—Functional Signs. — Dyspnœa is a symptom of this disease, and as a general rule, its intensity is proportionate to the quantity of fluid contained in the air-cells. A slight cough often also occurs, followed by the expectoration of an aqueous fluid, more or less in quantity; sometimes, however, there is no excretion whatever: but if the œdema be combined, as it often is, with pituitous catarrh, then the expectoration increases considerably, and changes also in its appearance. It then consists of a colourless pituitous fluid, very similar to the white of an egg, mixed with an equal quantity of water: it contains also bubbles of air. If inflammation of the lungs supervenes, a few sputa may be seen of a slight fawn, green or rusty colour, but still transparent; and sometimes, from the coexistence of mucous catarrh, there will float upon the transparent pituitous secretion a certain quantity of yellow mucus, often assuming an irregular round form. General serous infiltration of the body frequently accompanies œdema pulmonum.

Local Signs.—Percussion rarely affords distinct signs of œdema pulmonum, inasmuch as the disease attacks usually both the lungs, and consequently there is no difference in the sounds which may be elicited from the opposite sides of the chest. In most cases the sound thus produced is tolerably good, because there is yet a considerable quantity of air contained in the air-cells; but in chronic cases, when the serum has displaced the air in the vesicles, the sound is duller on percussion.

Respiratory Murmur, &c.—You may readily suppose, gentlemen, that the respiratory murmur becomes indistinct, as the air cannot freely enter into the lungs. You will recollect that whenever air and serous fluid co-exist in the aerian cells, that the "rhonchus crepitans" is produced. It is therefore very distinct in this disease; the bullæ convey to the ear a sensation of humidity, and are larger than in peripneumonic engorgement.

As the local signs of œdema pulmonum and peripneumonia in its first stage, are the same, it becomes difficult occasionally to determine which disease it is; but inflammatory engorgement is almost always attended by fever, œdema rarely; engorgement is an acute disease, œdema most frequently a chronic one: the latter is commonly a symptomatic affection; the former an idiopathic. Yet it must be admitted that sometimes the diagnosis is attended with considerable difficulty, and requires great caution.

When the lung is also emphysematous, or when a severe dry catarrh supervenes, the diagnosis becomes still more difficult, as the respiration is too slight to produce crepitation. By desiring the patient to inspire deeply, or to cough, you will often, nevertheless, hear the rhonchus crepitans.

Causes.—Œdema pulmonum is very rarely indeed an idiopathic affection; it is almost always consequent upon some other disorder. First, it may arise where there is a general serous diathesis, in which the whole body is in a state of dropsy. Secondly, it may be consequent to certain fevers, more particularly of the eruptive class, and especially scarlatina. Thirdly, it frequently co-exists with measles and its catarrh. Fourthly, you recollect I mentioned that in the resolution of peripneumonia in the first stage, the red colour of the serum became absorbed, and the fluid which remains is colourless; the portion of the lung affected is then in a state of œdema. Fifthly, it accompanies chronic catarrh, more particularly the chronic pituitous form, and especially pertussis. Sixthly, and lastly, it arises from diseases of the heart.

These are nearly all the circumstances in which we find œdema pulmonum. Of all these causes it is most frequently the consequence of diseases of the heart, and then it may be considered as a dangerous symptom. I shall here endeavour to explain the general theory of dropsy arising from obstruction to the current of the circulation.

It must be well known to you, gentlemen, that the cellular tissue of the whole body, and the free surfaces of the serous membranes, are constantly bedewed with a secretion by means of which the organs move easily upon each other: this secretion is deposited by the arterial capillaries, and as the function is constantly acting, the fluid would accumulate, were it not for the absorption which is as constantly performing also: so that in the healthy state there is a perfect equilibrium between the quantity of serum secreted, and the quantity absorbed. That the function of secretion of the serum is effected by arterial capillaries, there can be no doubt. It is not doubted either, that the vessels, called absorbents, absorb; but it has been supposed that the venous capillaries perform the latter function also. To determine this point, Magendie made several experiments, and the one I am about to detail seemed confirmative of the latter opinion. The hinder limb of a tolerably large dog was amputated high up, and its separation rendered complete, with the exception of the femoral artery and vein, so that the limb hung suspended to the body by these vessels, the loose cellular substance around them being carefully dissected off. The upas, a most potent poison, was then inserted under the skin of the amputated leg, and in a very short time its baneful effects became apparent in the body of the animal. Now the poison could only have entered into the general system by the femoral vein; for it would be inconsistent to suppose it could have ascended in the artery, since it would have gone against the current of the circulation. It was now objected that although the artery and vein might be clearly dissected of its surrounding loose cellular tissues, yet a sufficient number of absorbents might be left in the parietes of the vessels to admit the passage of the subtle poison. To answer this objection, Magendie, with great tact, after cutting off portions of the vein and artery, contrived so to introduce corresponding pieces of quills in their places that the blood flowed through them instead of the living vessels; yet the upas produced its effects in the same manner. This experiment seemed to be conclusive of the fact of the absorbing power of veins.

Lippi, of Florence, however, shewed that the lymphatics not only had a termination in the thoracic duct, but, as they followed the course of the veins, and were in close contact with them, they opened by minute orifices of communication into them, so that mercury injected into the lymphatics might be made to pass into these vessels; and I present you a preparation, in which mercury, injected into the lacteal absorbents, passed into the mesenteric veins; so that it is quite possible, in Magendie's experiment, that the poison first flowed into the absorbents, and from thence, by the minute orifices of communication, into the veins of the amputated portion of the limb, and that, consequently, the blood circulating through the isolated vein or the intermediate quill, was mixed with the poison before it had arrived at them. It is true that this demonstration does not disprove the absorbing functions of the veins, but it invalidates the experiments of Magendie, by shewing that they may be explained in another manner.

Under the supposition that either one or the other set of vessels absorb, or that they both do (for there is no inconsistency in the latter hypothesis), the following general proposition is not the less true: That any cause obstructing for some time the free current of the blood in the veins, will occasion an accumulation of serum in the parts from whence that blood is immediately derived. Thus it is a fact well known, that when the impregnated uterus enlarges to a certain extent, it often presses against the iliac vein or veins, and produces an enormous swelling of the corresponding limb or limbs: in this case the veins of the extremity affected become too full, and they are often seen blue, meandering and varicose in consequence: no serum can now be absorbed, for there is no room for additional fluid in the veins, admitting that these vessels alone absorb. Admit, again, that Lippi's demonstration be fully proved, as I think it is, that the veins receive the serum by the minute orifices I have spoken of, still there is no room in the already-filled vessels to receive the lymph, and the lymphatics must become gorged also, and their function suspended. Finally, supposing that the lymphatic vessels alone absorb, we know that the parietes of the veins are so interlaced and interwoven by the absorbents, particularly the iliacs, that it is impossible to press upon the one system without pressing the other. I repeat again, that pressure upon the veins occasions dropsical effusion in the parts supplying them with blood, or, in other words, destroys the equilibrium between secretion and absorption in those parts.

Let us examine now how certain diseases of the heart produce dropsical effusions. You will soon perceive here that it is from obstruction to the venous circulation, although a small part of the arterial is involved in it also.

The aortic orifice is often obstructed, either by ossific or cartilaginous deposits in its valves, or by congenital malformation. Let us suppose the calibre of the aorta at its origin to be diminished one half: as the blood arrives at that orifice from the lungs in its ordinary quantity, and only half of the column can pass through it, it follows that that fluid must accumulate in the left ventricle, the parietes of which often increase in muscular thickness, and acts most energetically to overcome the resistance before it, or it dilates, or both these circumstances occur at once, the left ventricle being then said to be in a state of hypertrophy and dilatation. As the left auricle is a continuation of the ventricular cavity, it also becomes gorged with blood, and its parietes become thickened or dilated, the four pulmonary veins are filled also to their capillary extremities, and so far the arterial system is alone affected; but now the pulmonary arterial capillary vessels meet with their obstruction, in consequence of the fulness of the pulmonary veins; the pulmonary artery becomes gorged with blood, and as the right ventricle and auricle are continuations of the canal, they soon arrive at the same state of plethora. Thus in the whole round of the smaller or pulmonary circulation, a series of obstructions exist, the one consequent upon the other, and the result is, that the veins cannot take up the serum in the air-cells, or in the pleuritic cavity, nor can the lymphatics, from the general plenitude of both sets of vessels; and œdema pulmonum, or hydro-thorax, or both, may be the consequence.

We will now trace the manner in which dropsy forms in the general cellular tissue. If the right side of the heart become loaded with blood, from the obstruction at the aortic orifice, the blood from the venæ cavæ meets with its obstruction in the habitually overfilled cavities of the right auricle and ventricle. The superior cava swells; its branches, to their capillary extremities, become congested; the sinuses of the brain become turgid; the face and lips assume a leaden hue, and swell, and this swelling depends upon an accumulation of serum in the cellular tissue of the parts, arising from the obstructed state of the superior cava.

If the fulness of the superior cava produce these effects, where the propulsion onwards of the blood not only arises from the *vis-à-tergo*, but is also accelerated by the force of gravitation, a similar series of results must more certainly occur in the system of the lower cava, where that fluid has to mount by the mere vital force: abdominal dropsy, and general cellular serous effusion of the inferior extremities, then take place.

Treatment. — The treatment of œdema must depend upon the disease with which it is complicated. Thus, if it arise from a general serous diathesis, in all probability there is a disease of the heart, and this is the organ to which your attention must then be directed. If an organic lesion exist, palliative measures only can be adopted, the disease itself being generally incurable. In such circumstances, diuretics, mercury, and the occasional administration of elaterium, are useful. When it occurs at the termination of fever, except dyspnœa take place, there is but little danger, and it will generally give way to tonics, purgatives, and particularly to mercury. If it accompany measles and catarrh, the treatment will then merge into that adapted for these complaints. If it be the result of peripneumonia, it requires little or no treatment; if it be conjoined with pertussis, the treatment must be the same as described for that affection.

APOPLEXIA PULMONUM—OR HÆMOPTYSIS.

We now pass on to the affection called by Laennec *Apoplexia Pulmonum*, or that state of the lung which is the most frequent cause of hæmoptysis, or spitting of blood.

It is a singular fact that although this disease has been known from remote antiquity, although it is somewhat a common affection, yet its morbid anatomy has not been understood until lately; it has generally been supposed that hæmoptysis arises from the bursting of large blood-vessels; but that is an erroneous opinion: it seems rather to depend upon an exudation of blood from the capillary vessels of the lungs.

Morbid Anatomy.—Laennec has given us the following description of the morbid anatomy of this disease.

The lung becomes as firm as in ordinary hepatization—I should say even much firmer. The disease is always partial, and rarely affects a large portion of the organ: its extent varies from a pin's point to three or four cubic inches: the firmness is most frequently exactly circumscribed, and the engorgement is as great at the circumference as at the centre: there is no gradual diminution of density, as in hepatization, but a distinct line of demarcation separates the healthy from the diseased parts: the surrounding cells are usually healthy and crepitant; they are often even paler than natural; sometimes they present a rosy or even red colour, depending upon the infiltration of a certain quantity of coloured serum.

The colour of the diseased part is of a deep black red, similar to that of a clot of venous blood, and differing from that of hepatization inasmuch as the former is homogeneous, and permits us no longer to distinguish the bronchial tubes, the blood-vessels, or interlobular cellular substance; for all are involved in a deep red colour. The neighbouring veins are often filled with concrete and half-dried blood. The lung, if torn, presents a granular appearance like hepatization, but the granules are larger.

The pulmonary tissue is less humid than in hepatization; you may scrape from the surface of a section a small quantity of black and half-coagulated blood; sometimes the centre of the apoplexy is softened, and filled with a clot of pure blood. It occasionally, though rarely, happens, that the substance of the lung may be torn by the sanguineous effusion; and Corvisart mentions an instance in which the pleura was lacerated, and the blood escaped into and filled its cavity.

Several apoplectic engorgements may occur in the same lung: often both lungs are simultaneously affected; and although they may be found in all parts of the organ, yet they are most frequently situated in the centre of the inferior lobes.

It is very easy to distinguish this disease from the ordinary cadaveric engorgement. In the latter case a red and spumous serum flows from the section, which fluid gravitates towards the lower part of the lung. The œdematous effusion is not circumscribed; there remain always some degree of crepitation; no granules can be seen, but the areolar texture of the organ is to a certain degree apparent, and the lung may be rendered flaccid by repeated washings in water. A pulmonary apoplexy is always exactly circumscribed, very firm, of a blackish red colour, granulated, and scarcely humid, becomes but little paler by frequent ablutions, and then does not lose its firmness.

Resolution may even take place in this morbid condition or the lung, for many persons recover. In the few cases which Laennec had seen, it appeared that the engorgement passed successively from a black to a pale red colour, and that it gradually lost its granulated texture and density.

[This demonstration was elucidated by a number of preparations, drawings, and diagrams.]

Signs—Functional and General.—The patient complains of dyspnœa, of oppression in the chest, and frequently of pains and heat along the course of the sternum. There is a frequent, short, and troublesome cough, depending partly upon the blood irritating the larynx as a foreign body, partly from the presence of that fluid in the trachea and bronchial tubes. The pulse is full, often hard, and presents a peculiar vibratory feel and quick movement, as if quicksilver were circulating in the arteries, constituting what is called the "hæmorrhagic pulse," and is often accompanied by the "bruit de soufflet" of the heart and arteries. There is rarely fever, and the skin is of its natural temperature, or nearly so.

But the great and distinguishing symptom of apoplexia pulmonum is the expectoration of blood. It is usually copious, and returns frequently for some hours or even days, accompanied by a distressing cough, oppression in the chest, and great anxiety: the face is at first intensely red, but afterwards becomes pale: the extremities are cold. When the spitting of blood is abundant, the cough is often slight, and it would appear by the movements of the diaphragm to be ejected by vomiting—a circumstance which, no doubt, frequently takes place from some of the blood having been previously swallowed: this is further proved by the alvine evacuations being almost always of a very dark black red colour, as we find during an attack of hæmatemesis.

The colour of the blood expectorated is bright red, or black; it is spumous, and often coagulated; the quantity varies exceedingly; it is often enormous: Laennec speaks of an instance in which ten pounds were expectorated in forty-eight hours. I have seen two or three cases of similar quantities. These quantities are not, however, certain proofs of the magnitude of the apoplectic engorgement, as the bronchial mucous surfaces sometimes, though very rarely, give origin to great hæmoptyses, and large apoplexies do not always give rise to great hæmorrhages; nay, it sometimes happens that an engorgement of one or two inches may exist without producing any expectoration of blood.

Local Signs.—From having seen in two or three instances the expectoration of blood increased by an injudicious mode of examining the chest, particularly by obliging the patient to inspire deeply for the purpose of hearing the sounds more distinctly, I rarely now make any local observations, except I can do so without occasioning the patient the slightest fatigue or change of position. A local examination is also less necessary, because the general and functional signs are upon the whole sufficiently evident to indicate, if not the seat, at least the nature of the affection, and the treatment required. But these signs are as follow:—

Percussion indicates but little, inasmuch as the apoplexy is usually but of slight extent, and is so placed towards the centre and base of the lung that no difference of sound can be appreciated: if, however, the engorgement be considerable, and approach the surface, then percussion would elicit a dull sound from the part of the chest corresponding to the part of the lung affected.

Auscultation affords two signs: the first is absence of the respiratory murmur, proportioned to the extent of the apoplexy: the second is a "rhonchus crepitans," surrounding the part where the murmur is inaudible, indicating the presence of slight rosy serum around the engorgement: this crepitation is heard at the beginning of the disease, and afterwards ceases. When these signs occur, it is evident that the hæmorrhagy has its source in the substance of the lung, and not in the bronchial tubes; but as, in bronchial hæmorrhagy, a mucous rattle, formed of bullæ with apparently thin parietes, and seeming to burst from distortion, is audible, particularly at the parts of the chest corresponding to the roots of the lungs, this species of rhonchus is doubtless produced by the presence of blood in the large bronchial tubes.

Causes.—The causes of apoplexia pulmonum are the same as those of bronchial hæmorrhagy; as, general plethora, the abuse of alcoholic fluids, singing, playing on wind instruments, violent exercise, blows upon the chest; in fact, any cause tending to accelerate the circulation.

A pulmonary hæmorrhagy may be vicarious of some other habitual discharge of blood; thus the suppression of the hæmorrhoidal flux has been said to produce hæmoptoe. The cessation of the catamenia at the critical period of female life is certainly an occasional cause of this disease, and a surprising quantity of blood is sometimes lost from the lungs at this period, and yet the patients usually recover. I have also seen hæmoptoe co-exist with amenorrhœa.

Laennec observes that spitting of blood often occurs during the primary eruption of tubercles: it appears to me that that sign is most common at the time of their softening. The quantity is usually then inconsiderable; generally merely a few spots or streaks mixed with the sputa. It might be supposed that the destruction of portions of the lung consequent upon the softening of tubercles, and the formation of excavations, would produce considerable hæmorrhagy: I have seen such cases, but they are very rare; for, as we shall hereafter find, the blood-vessels, as they approach tubercular cavities, become obliterated.

Temperature has evidently an effect in the production of this affection: thus the sudden or long-continued impression of cold acts as a cause. Laennec conceived it possible, from seeing such immense quantities of blood occasionally ejected, that there must occur a sudden dilatation of that fluid. It is certain, when the atmospheric pressure upon the body is diminished, as in ascending high elevations, dilatation takes place, as the surface of the body then becomes turgid, and considerably reddened by the fulness of the capillaries, and effusions of blood from the nose, mouth, and bronchial surfaces, often happen. You will observe also, that when the heat is great and of long continuance, hæmoptysis is most common, as in the months of July and August.

Obstructions at the aortic or mitral orifices, by inducing sanguineous engorgement in the pulmonary circulation, may produce apoplexia pulmonum. These are, indeed, among the most common causes; but we shall advert to them again when we arrive at the description of disease of the heart.

A sudden and fatal hæmoptoe is sometimes caused by the rupture of an aneurism into the trachea or its pulmonary divisions. I present you specimens of these lesions.

Treatment.—As, in the ordinary forms of hæmoptysis, the pulse is strong, full, and jerking, so it becomes necessary to diminish the force of the circulation by abstraction of blood. Venesection is the best means of effecting this, and the quantity to be drawn should be proportionate to the force of the individuals, and to the fulness, tension, and jerking of the artery. I never consider the patient safe until this violent action of the pulse is subdued, or at least very much diminished. A large bleeding effected at once is better than a number of small bleedings. Cupping, or leeches, in some cases may be employed, when the patient's powers do not admit of general depletion.

The next point to be attended to, is to insist upon the most positive repose, both of limbs and voice; do not allow your patient to speak, put your questions in such a manner that he may answer you affirmatively or negatively, by gestures alone, recollecting that to speak it is necessary to throw the lungs into increased movement, and they should be as quiescent as possible.

You should allow a free current of cold air to pass over your patient; let him be but very lightly covered; wash the chest and neck frequently with cold water, or vinegar and water, or, what is better still, apply, from time to time, a large bladder containing a quantity of pounded ice, to the surface. Let the thirst be satisfied with cold fluids, avoiding of course all stimulants.

After having bled your patient, and placed him under the circumstances I have detailed, then you will find the administration of a drastic purgative to be useful: it was the practice of Sydenham, and it tends considerably to diminish the force of the circulation.

I confess I have not much confidence in other remedies in this disease: you will find that amongst them the digitalis is the best; alum, the acids, and the superacetate of lead, are commonly given, and you may use them according to the formula you will find in medical works. Dr. Rush, of Philadelphia, recommended large doses of common salt.

When the force of the pulse is diminished, and the violence of the disease is abated, counter-irritants applied to the chest, as dry cupping, stimulant embrocations or blisters, are most useful means of relieving any remaining oppression or dyspnœa.

You will occasionally find, in persons of debilitated constitutions, the hæmorrhagy to be of a passive kind, that is, the quantity of blood expectorated is, upon the average, small, the pulse weak, although frequent, with no jerking or fulness. In such cases, general bleeding cannot be borne; you must depend upon repose, upon the application of external stimulants, and upon the use of the acids and astringents I have already mentioned.

A teacher, gentlemen, is obliged to select for his subjects marked cases, so as to give good exemplary ideas. In describing this disease, I have taken two extreme instances; the one accompanied by increased tone of the system, the other by diminished power; but there are also all shades of intermediate differences, requiring modifications of treatment, which neither my time nor your patience will permit me to detail; but the knowledge of which is to be acquired only by a sedulous attention to practical or, as it is called, clinical medicine.

CLINICAL LECTURE

ON

CANCER, MORE ESPECIALLY ON CARCINOMA OF THE MAMMA,

Delivered at the Middlesex Hospital, October 18, 1834,

BY SIR CHARLES BELL.

THE surgeons of this hospital are bound, after the example of the founders of the cancer-wards, to pay every attention to this important class of diseases. At present there are unusually few cases of cancer in the house, for there is perhaps not a month in the year in which we have not great many more; and yet there are sufficient to mark the importance of the subject, and to excite your sympathy in the highest degree. There are cases before you sufficient to shew, that, whether you shall hereafter be physicians, surgeons, or accoucheurs, if you have practice at all, you are sure to encounter a great deal of responsibility on this subject, and you will be uncommonly fortunate, or callous, if you do not experience pain and trouble.

No wonder that authors have acknowledged their incapacity to define cancer, and their inability to treat it methodically; for the term *cancer* is a vulgar word; in common language it means a malignant ulcer which cannot be healed—which goes on progressively to the destruction of the patient; and a great many diseases must, of course, be spoken of under such a term as this. But the word we ought to employ is *carcinoma*, and the disease to which I shall first direct your attention is the carcinomatous tumor of the mamma, in women of a certain age. Gentlemen, I entreat your attention, for I am aware that what I have to say will little interest you unless you have a forecast of the very distressing questions you will have to determine on, and unless you consider the matter in a manly and rational way.

The term *scirrhus* is principally employed by the authors you study on this disease. Now scirrhus properly means only those hard tumors which may arise from a great variety of different causes, local as well as constitutional, and which hardness results from morbid interstitial deposits. Certainly, in some authors, you find the term *exquisite scirrhus*, by which they mean that hard lump which will, in process of time, form an open sore—a true cancer. I believe, then, I cannot be better employed than in explaining what scirrhus means, and how it may arise. Properly it means, then, only a hardening; and it may be by an interstitial deposit, a consequence merely of a slow increased action, or it may be attended with a peculiarity of action—that is to say, it may arise from partial and accidental irritation, or it may be constitutional.

To illustrate this, we shall take the testicle, as affording something like a fair parallel with the gland which is principally to engage our attention. You are aware that the testicle will swell with phlegmonous action, under the influence of inflammation in the urethra, occasioned usually by gonorrhœa—sometimes by the improper use of a bougie or catheter, or even in consequence of the operation of lithotomy. The effect of this inflammation will be a swelling, which, when it subsides, leaves a hardness, or scirrhosity; and I beg of you to notice a man in Stafford's ward, named Chaurnell, where you will find just such a scirrhosity of the testicle.

Finding the gland thus enlarged and hard, it becomes a question whether this be the effect of mere common irritation, and consequent common inflammation, or whether it be irritation influenced by the constitution. The same irritation will produce, in a young man, a scrofulous testicle, and in an elderly person a scirrhosity threatening cancer. The question how far the swelling is constitutional, enters into every consultation on such a case, and of course whether the swelling, being a consequence of mere irritation, is to be removed by subduing the inflammation, or whether we must not remove also the constitutional peculiarity. If a blow be inflicted on a bone, a very natural consequence of that would be a swelling, and sometimes a tumor or exostosis will arise from it; but if the person be labouring under syphilis, the tumor will not subside under depletion, leeching, fomentations, and so forth, because, although the vascular action which is in excess be removed, yet the influence of the constitutional peculiarity continues. In the same way, if a youth who is strumous, with a strong scrofulous condition, receives a blow, the effect is not merely such as would be produced in a healthy person—mere inflammation of the part, and swelling—but there is mixed up with it the constitutional peculiarity, and you have to subdue the overaction, and at the same time support the constitution, or use those remedies which you know are good in a strumous habit. This I take merely as an illustration, and you will find the use of it as we proceed to our proper subject.

Do not be surprised at the volume of papers in my hands: these are the records of my observations on the subject, which, as surgeons of the cancer institution, we are bound to keep, and to lay before the board. I am using them as furnishing us with the best examples drawn from twenty years' experience.

The first general head to which I beg you to attend is this :—

OF THE PERIOD OF LIFE AT WHICH CARCIMONA APPEARS IN A WOMAN, AND THE MANAGEMENT OF THE FEMALE CONSTITUTION WHEN THREATENED WITH SCIRRHOSITY AND GLANDULAR ENLARGEMENT.

I am of opinion there is a family peculiarity of constitution connected with carcinoma. A woman in whose family scirrhus has appeared, ought to be more than usually cautious in attending to her health, and to the influence of the uterine change upon her constitution as she advances in life.

Secondly, there is, in my mind, a strong alliance between scrofula and cancer; so that in a family in which struma is inherited, there ought to be especial attention paid to the women of that family at the change of life—by which we mean when menstruation ceases.

Carcinoma, like some other diseases, is too apt to prevail in the descendants of such as have suffered from the disease. A person will come to you with paralysis, saying that his father suffered from this disease at the period of life in which he now presents himself; and the same is the case even with dropsy: a person will come and say, "my relatives have suffered from this complaint." So will a woman with a tumor which threatens to be carcinoma, come to you and say, "I am anxious about this; it makes me unhappy, because my mother and my aunt suffered from what I am now threatened with."

4thly. The age at which the disease prevails, is from 40 to 55; and it is more acute, runs a more rapid course, at 45, than from 55 to 65, or 70. It is very important for you to notice this. A woman presents herself to you as a patient, with a hardness in the breast threatening carcinoma. The disease will run more rapidly if she is only 38, or 40, than if she be decidedly an old woman. For example: there is an old woman, a patient of mine, in the cancer ward, with an enormous carcinomatous tumor, now extending over all the side. She is very old; but if she had been 40, these horrid tubercles would have burst into open cancer, and she would have died long since; whereas she has seen that ward filled and emptied many times, and now remains in a tolerable condition of health.

5thly. In men, as well as in females, we observe a climacteric period; and it is well to notice what takes place at this period of life, exclusive, I may say, of the uterine system, which claims such importance in the other sex. That condition, then, is marked by a gradual decay of strength, a listlessness of mind, an incapacity for business, and sometimes great depression of spirits. The secretions are disordered; and irregular slow fever affects him; there is thirst, but no want of appetite; and there is increased action of the kidneys. At such a time, the mind should be supported by friendly and social discourse, travelling, and change of scene; the digestion should be watched, and exercise enforced. But if, instead of this, when these symptoms prevail, some family misfortune or real cause of distress should unhappily befall him, ten to one but he will not be able to bear up against it: some organic disorder will begin to shew itself, with a certain indefinite change in the countenance and general expression. Happily, however, this condition of the general system very often passes off, and vigorous health is again established.

6thly. By this digression I mean to infer, that in women the change of constitution may not at all times depend upon the uterine influence, but may have a source more akin to what takes place in the other sex: yet I must affirm, that in ninety of a hundred instances of constitutional disturbances at the period alluded to, when the menstruation ceases, the ovaria and the uterus are the sources of disturbance. Nature has established a reciprocal action between the uterus and mammæ, and though widely apart, they are intimately united in sympathy. The parts in the pelvis are joined by juxtaposition, sympathy, and community of circulating vessels, but sympathy alone affords an equally intimate union between the ovaria and mammæ. Every change in the ovarian circulation has an influence: every change here, as you well know, or ought to know, has its effect upon the mammæ; the first period of puberty and the final period of change—menstruation, conception, quickening, delivery—all have this influence. In all these different conditions, the changes in the uterus and ovaria are attended with, or marked by, pain and turgescence of the mammæ. At the final termination of ovarian action—that is, at the "turn of life,"—the irregularity of menstruation produces a most decided influence on the mammæ. It is this which lays the foundation of the disease we are to consider; yes, it is the disturbance of the uterine system which, at the change of life, produces irregular flushings of the face and depression of the spirits: we may see the individual flush, and hear her sigh; she then breaks out into perspiration, and the little paroxysm is over. The condition of the female system is said to subject them to inflammation and congestion at this time—to rheumatism and to erysipelas; and all this I can very well believe.

The number of young women, from the age of 16 to 25, who have presented themselves in the hospital with lumps in the breast, is fully equal to those who have presented themselves at a later period of life with carcinoma. We have to trace an influence of the same kind in both—namely, irregular uterine action: that which in the early period of life produces strumous lumps in the breast, at a later period of life will lay the foundation of carcinoma. I take an example from the papers before me. A young woman presented herself in this hospital with an enlarged hard mamma, in the expectation that we would perform the operation of amputation. When the breast was examined, we declared it was not necessary to operate; that the swelling, from her age and her constitutional character, was more allied to struma than to carcinoma; and we did not, and would not, operate; upon which it came out, that, in the country, they had taken off the other breast for a complaint exactly similar to that for which she now presented herself. The young woman was in these circumstances taken into the hospital, and from the remedies employed, by and by the tumor subsided, and she was dismissed cured. This is a remarkable case, but you will see many similar; you will see patients sent up for operation who are suffering from strumous enlargement of the mamma: hence you are to understand that, according to my experience in these matters, the uterine irritation that takes place on the first appearance of change produces swelling and disturbance in the mamma, and that such disturbance will leave after it a tumor of a strumous character; but the irregularity of uterine action taking place at 40 or 50, will not be attended with strumous disease, but with carcinoma—tumors of a worse and less manageable nature. Now this being the truth, it is very important that you consider it, otherwise you will be performing the operation of extirpation when it is not necessary; and you will observe, that the operation for carcinomatous mamma is considered with a more favourable eye by surgeons in general, because they do not operate in the true carcinoma, but in strumous disease of the breast. They take off scrofulous disease of the mamma, and the patient recovers, and lives long; whereas, were they only to operate when there is true carcinoma, their opinion would coincide with mine, they would be less sanguine—I mean in regard to the favourable termination after the operation of amputation.

What you see in the breast of a female, you see in the glands of the other sex. Suppose, for example, that there is a sore throat, or inflammation in the fauces, and that it produces a swelled lymphatic gland on the side of the throat; in a young man this becomes a scrofulous swelling, and abscesses, such as you see every Thursday among the out-patients. Now contrast these with the case which you have just seen in Hartford ward, where the patient has a scirrhous tumor in the neck. He tells you he had a quinsey—that was internal inflammation, producing action or excitement in the glands of the neck; and these, in a man 50 years of age, have taken on a carcinomatous character, and he is beyond our means of giving relief. The parallel, then, you see, is a just one.

In the next place, as there is a coincidence in time, so is there a considerable resemblance in the nature of the disease which fixes upon the ovaria and the mammæ; the difference is chiefly in their position as internal or external parts. This is a very interesting inquiry, because it embraces an extensive view of practice. The scirrhosity, I say, and hydatid tumors, to which the ovaria are subject, would become uncontrollable fungated ulcers were they attached to the skin. On the other hand, many of the hydatid and encysted tumors which infest the mammæ, and are the forerunners of so many distressing cases of ulcer and ill-conditioned sores, if they were seated in the ovaria, being internal, would smolder, and partake of a chronic state that would hardly interfere with the term of life.

Let us take our illustrations from some other departments of practice. You know familiarly well that an abscess makes its way to the surface. Why is that? It is not enough to say that it is a sort of intelligence, as Mr. Hunter would describe it, by which the disease makes progress to the evacuation of the matter: that is not the case; it is the consequence of a more general law, that action is more easily excited, and goes to a higher degree, in the surface, than in the deep part; and the side of an abscess which is next the skin will enter more readily into inflammation, ulceration, and absorption, than the part which is deeper seated, or removed from the surface. The consequence of this law is, that suppuration tends ever to the surface; and you must have remarked, that when an abscess has been in a chronic state, being internal, no sooner does it reach the skin than it becomes highly active—that is to say, the skin inflames, it is rapidly absorbed, and the abscess points and discharges. If you be not convinced of this, take the example of an inflamed lymphatic gland. Suppose there is disease of the penis, and that, either by irritation of a lymphatic gland, or by an absorption of matter, it involves an external gland of the groin in inflammation; the consequence is bubo; but, as anatomists, you are aware that lymphatic vessels go round under the pubes, and into the pelvis, yet you never heard of a bubo within the pelvis. Even authors upon this part of anatomy and pathology tell you that there is no such thing as an inflamed and suppurative gland within the abdomen. They attribute it to Providence. I admire their tone of mind; but without profaneness, I would say the immediate cause is, that the gland is internal, and does not inflame—is not subject to inflammation from a degree of irritation which would cause suppuration in a gland lying immediately under the skin. There is a parallel case in the instance of a ball. A ball, as I stated last week, will accidentally remain some ten or fifteen years in the body, lying close to the vertebræ; but who ever heard of it remaining so long under the skin? No; it will remain quiescent, if deep, producing no re-action; but it will not remain 24 hours without inducing inflammation, if it be just under the skin. The uterus and ovaria are internal, the mamma is external; and when disease at this climacteric period affects the body of the uterus, it will long remain chronic, or quiescent; if it influence the os tincæ, the more external part, it will be more active and more destructive. But even here its rapidity will not be equal to that of the same disease affecting the mamma.

These remarks lead you to comprehend the reason of my very great desire to be particular in

The Mode of Dressing the Breast.

It is to make the mamma, as far as possible, an internal part, or, in other words, to protect it against the changes of temperature, and to give it a gentle and uniform support, and to soothe, not to excite, the skin over the gland. I shall now minutely describe the manner of dressing, believing that it is a lesson of the first consequence to you.

Whilst the dressings are preparing, let the breast be covered with a flannel fomenting cloth wrung out of a warm lotion (a drachm of extract of conium in a pint and a half of water;) prepare a soft ointment of the empl. thuris and extract of conium, or of mercurial ointment, or with a proportion of the ung. hydriod. potassæ; spread this on long slips of lint, and lay these slips over the tumor in all directions, covering it completely; cover this dressing with a piece of oiled silk, making a little slit for the nipple; over this lay a layer of cotton wadding, so that the breast be uniformly compressed, and the nipple guarded. Finally, swathe the bosom, and lay on each side of the neck shoulder straps, or the split cloth. Do not be satisfied with recommending the arm to be kept still, but put a turn of ribbon round the arm, and pin it to the side, or let the hand rest on a ribbon round the neck. (A bustling woman will quite defeat your purpose, by the incessant action of the pectoral muscle under the mamma.) This dressing should remain for three or four days.

The best example of the happy effects of this mode of dressing the tumor of the mamma, combined with proper treatment, you have in a woman who occasionally waylays me in the Northumberland ward. The reason is, that she was long an inmate of that ward, and is known to the nurse. Now that patient had an enlarged, hard, and knobby breast, which was by all of us condemned to operation. She refused to submit, and I was constrained to limit my treatment to the mode I have described, and the result has been a complete softening of the gland, and a disappearance of the "scirrhus."

I was led to these remarks on the local treatment of the tumor, by observing that disease of the ovaria or uterus very generally accompanies the disease of the mamma: so that when you see a scirrhous tumor in the mamma, you may be almost certain that there is more or less of the same disease in the uterus or ovaria; but it is not noticed in practice, because there are no prominent symptoms during life. There is scarcely a case, however, in which the patient dies of mammary disease, where you do not find a diseased state of the uterus or ovaria; and therefore, when you come to the question of amputation, you do not merely judge by the appearance of the mamma, by the condition of the glands of the axilla and neck, by the countenance and general appearance of the patient, but also by those symptoms which indicate uterine disorder; and although there be no diseased glands in the axilla, and nothing very remarkable in the woman's countenance, yet if she be complaining of pains in the loins and hips, and down the thighs, which are indicative of disturbance in the uterine system, I would advise you not to operate, but to endeavour to alleviate the symptoms.

These remarks lead to a distinct object in practice—viz. to remedy the defects of constitution, and allay the irritation of the uterine system.

I have mentioned the constitution of men at that period of life, and may here notice that prostatic disease offers a fair parallel to glandular disorder of the female, and that it is one of the sequelæ of the same condition. I take this illustration. A young man comes to you, saying that he has got disease of the prostate; you are at once aware that he cannot be the subject of the "prostate disease"—that disease to which old men are subject. In the young man, the prostate gland becomes the seat of a scrofulous abscess, and it will wear out the constitution as effectually as a scrofulous abscess in the lungs; but he is not subject to that scirrhosity which is peculiar to advanced years, and therefore you may give him every assurance that he has not the prostate disease. But if a man of 70 comes to you in the same circumstances, complaining of disturbance at the neck of the bladder, and frequent discharge of urine in small quantities, and if he have neither the symptoms of stone nor a stricture in the urethra, you may be almost assured that prostatic disease is commencing, and that it is of a formidable nature.

I mean by this to remind you, that in men, as well as in the other sex, there is a disease peculiar to a certain period of life, and of the most serious nature—a disease which never takes place at an early period.

In regard to the constitution, to me, who in early life knew the merit and the excellence of Dr. Plummer's pill and diet drink, and its habitual use by the old practitioners of Scotland, it was a matter of surprise, about twenty-five years ago, to see the same treatment become quite the fashion here, under the authority of Mr. Abernethy's name. That gentleman had the unhappiness, I must say, to estimate public opinion very low; and singularly enough, the manner in which he marked his contempt, became the source of increasing popularity. I speak of this, because I am apprehensive that the admiration of Mr. Abernethy's practice may have gone too far, and produced a sort of re-action, and it may now be too much neglected; but it is founded in extensive observation, and is not to be lost sight of: you must not lend yourselves to mere fashion in these things. The system of old Dr. Plummer, which was to give his well-known pill at night and his diet drink, and to send his patient to the mountains to drink goats' milk, was effectual to the destruction of a variety of local diseases; and every apothecary in the northern part of the island knew this well long before Mr. Abernethy took it up; and therefore, from that long experience, and from the experience and authority of Mr. Abernethy, you must not throw it lightly aside. The blue pill and the bitter purgative draught are good; the compound calomel pill and sarsaparilla are good, for they are the means of exciting secretion in the bowels, at the same time that they soothe them by removing what is irritating. The bowels may be disturbed, and yet neither pinch nor give pain in any way; but they may produce irritability of temper and of constitution, or nervous depression, and thus lay the foundation of organic disease.

With respect to the great leading cause of all, in these diseases of women—viz. irregular and disturbed menstruation, it may be taken as a pretty general rule, that it must be treated by cooling regimen, the tepid shower-bath, the warm salt-water bath, friction of the whole body and loins, gentle exercise in the open air, and change of residence, if circumstances will admit of it. Travelling imposes on the rich and indolent a condition the most nearly approaching to that state of nature and of freedom which the peasant has by necessity. There may be found, in the cases that I lay before you, notices of women of corpulent habit, and in apparent health, but with pains in the breast, enlargement of the belly, sickness, and suppression of the menses; and such women, unless much care be taken, will have confirmed scirrhus. I will select a case of this, and give you a remarkable instance, because it is imagined that these sores never heal.

"Jemima Malone, 45 years of age, the mother of ten children, the youngest eleven years of age, four years ago first perceived a lump in her right breast, of the size of a marble. In the course of a year it had acquired the size of an egg. Two years after its commencement, she applied at St. George's Hospital, where she was recommended to have the breast removed; but to this she would not consent. The nipple at this time was not drawn in. About six months ago, the breast became discoloured, numerous small lumps formed round the larger tumor, and soon afterwards it became ulcerated and painful. The ulceration has since gone on gradually increasing, till it has attained its present immense extent. The tumor occupies the greater part of the right side of the chest; the central point is deeply ulcerated, and sloughing around the ulcerated part, for about two inches. The skin is of a dark blue colour, and studded with small hard tubercles."

Gentlemen, you will at once acknowledge that this is an aggravated case of carcinoma. The report proceeds—"She still menstruates, and has always done so regularly; at the period of menstruation the breast bleeds. She has no difficulty in breathing, but has constant dryness of the fauces, which awakes her in the night with sudden choaking."

Now the case of Malone proved to be one of the most remarkable that has occurred for a long time, from the complete closing and cicatrization of one of the most malignant cancers. The circumstances of the case are still fresh in the recollection of every body. Her name appears in the books from June to November, 1830. When this patient came to the hospital, she was remarkably stout, with a full, ruddy face, altogether of the robust landlady appearance. She had this open cancer in one breast, and the tumor was of unusual size—fully half the size of the head. The nipple was eaten away by ulceration; a deep foul sore occupied the centre; the edges of the sore were abrupt, rugged, tuberculated; altogether this was the worst and most formidable case that the surgeon could well look upon. The remarkable circumstance was, that in the course of a few months the woman's whole appearance became altered; and it was obvious that a great constitutional change had taken place. She was always a timid and effeminate creature in disposition; but the robust, blown appearance, left her completely, and she became spare and thin, and her face pale, having now more the look which belonged to her real disposition. In the meantime a most astonishing change took place in her breast. The great mass fell low, the huge crater closed and gradually cicatrized, the edges of the ulcer also healed, and the appearance is now very remarkable. There was still the excavation and rugged edge, but the skin whole, and there was every appearance of a complete subsidence of that action which some months before seemed so very formidable.

It will be anxiously inquired, what was the treatment in this case. There was no specific medicine, but only that system pursued which I am anxious you should follow in these cases. I have already mentioned to you a patient who occasionally comes here on a Thursday, who had a tumor which, on a full consultation, was condemned for operation; but it has entirely disappeared, and there is now no disease whatever. These cases are important, because they furnish us with some hope that, even when circumstances are exceedingly bad, there may be an amelioration and cicatrization of the tumor.

When the menses stop suddenly, and return with a hæmorrhagic character, we can but suspect some disease already commenced in the uterus, and the *flow of blood* —I mark that with emphasis—with unusual pain, proceeds from this source. You are aware that there ought to be no clot. This is a condition which requires the utmost attention. Camphor in pretty full doses, with extract of hyoscyamus and opium, will allay the pain. It certainly is not desirable to see the menses intermit; small bleedings, therefore, are proper enough at this period, and used to be more frequently practised than now. I confidently recommend you to bleed from the hæmorrhoidal vessels, by leeches, once a fortnight. The warm salt-water hip bath has a very soothing influence, when there is pain shooting from the back to the pubes, and tenderness of the spine, which is a very frequent attendant on uterine irritation. Warm fomentations, with anodyne extracts in solution, are proper, applied not only externally, but to the os tincæ and to the vagina, by a well-contrived injecting apparatus: this greatly allays irritation. For example, the mucilage of quince seeds and extract of hyoscyamus or conium, tepid, form an excellent injection for the vagina. The pipe should be passed through a piece of sponge, which makes the injection easy, and does not disturb the parts within. If there be any indication of disturbance in the mamma, a seton or issue should be made in the arm. With respect to the bowels, it may sometimes be proper to use aloes and other warm purgatives, which operate on the rectum and hæmorrhoidal vessels; but sometimes they are to be especially avoided, and rhubarb, senna, and jalap, to be preferred. In cases of threatened carcinoma, a change of diet is advisable—for nothing is so serviceable in inducing a change of constitution. Coffee and milk for breakfast; rice-milk, with cinnamon, in the forenoon; a pudding made with egg for dinner, and milk, or soda-water, and a biscuit or rusk, in the evening, is enough of nutriment. If our patient has been in the habit of taking meat at dinner, a heavy supper, and something comfortable on going to bed, which is the way that the principal part of the patients live who come here, we may expect present advantage from such a mode of living as I advise. The treatment that is adopted, local and general, with advantage, in cases of struma, is also proper when there is a threatening of carcinoma. These were the circumstances that were attended to with such benefit in the cases alluded to.

For the reasons I have assigned, it is my duty to enter very fully into this subject, but I will give it in small and repeated doses, so that you will not be wearied with me. I may devote half an hour to it occasionally, while at the same time I attend to the common practice of the house.

CONTRIBUTIONS TO THE PATHOLOGY OF THE CHEST.

ULCERATION OF THE LUNGS.

To the Editor of the Medical Gazette.

SIR,

As diseases of the lungs are of vast importance, and when we consider that no less than four distinct maladies, namely, ulceration of the larynx, chronic inflammation of the bronchia, pleura, and substance of the lung, may be, and frequently are, mistaken for true tubercular phthisis, I conceive any thing illustrative of these diseases to be acceptable, especially when it is obvious we can only obtain a more lucid knowledge of each, where their causes and nature are more clearly pointed out. The diagnosis and prognosis, in the latter stages of these diseases, are also difficult: the former, from the sequel of each being analogous, that is, terminating in ulceration and suppuration of the substance of the lung; the latter, from its almost universal, but in some rare instances favourable termination.

The following is a case of ulceration of the body of the lung, originating from chronic inflammation, and in many respects highly interesting. I was assisted in the treatment and management of the patient by Dr. Turner, whose opinion of the case coincides with my own. I have endeavoured to contract the details of it as much as possible; and should you consider it adapted to the pages of your useful journal, its publication will oblige

Your obedient servant,
WILLIAM ROBBS.

South Terrace, Grantham,
Dec. 1, 1834.

Mr. S., aged 39, of sanguineous temperament, fair complexion, with light brown hair, rather above the middle stature, and possessing the appearance of having been a fine healthy-looking man. For some years he filled the situation of guard on one of the York coaches running to London. In the autumn of 1832 he was attacked with pneumonia; for this disease he was under the care of Dr. Balcombe, of York, from whom I received the following account:—

"Mr. S. has laboured for some time under a subacute form of pneumonia, which has yielded to repeated local bleedings and blisterings; this occurred some months ago. Within these last few weeks there has been a recurrence of the attack, but in a much milder form. The chief symptoms have entirely subsided, but there still remains a spitting of bloody matter, which shews some ulceration of the body of the lung, and it is of much importance that it should be watched."

June 5th, 1833.—At this time he went to Leamington, where he made use of the Leamington water and shower-baths. After this he spent two or three months in Leicestershire; from thence he came to Grantham, without having received any relief. I was first called in attendance on the 4th of October, 1833. He then presented an emaciated appearance, had a troublesome huckling cough, and expectorated about a quarter of a pint of bloody mucus, mixed with purulent matter, in the twenty-four hours. His appetite was tolerably good, but he suffered great flatulency after a full meal, and his cough became more troublesome. The circulation of the blood was regular, the pulse never exceeding 96 in the minute. He complained of a burning pain in the throat, palms of the hands, and feet; a dull pain of the left side, with a very oppressive sensation at the pit of the stomach. Bowels costive; great lassitude; no chilliness; no night sweats; no hectic fever. His sleeps at night were short and disturbed; he was able to lie on the right side, but whenever he attempted to turn on the left, he eructated large quantities of gas, which he said smelt like the Harrowgate water. There appeared an unnatural bulging of the left side of the chest. On percussion and auscultation, the right lung performed its office naturally; the left, at its superior part under the clavicle, was dull; and on the application of the stethoscope, the mucous rattle was distinct. At the inferior and posterior part, the respiratory murmur was not distinguishable; more anteriorly, and between the sixth and seventh ribs, just below the left breast, pectoriloquy was very distinct; and when the patient coughed, a gurgling noise was heard. He was ordered to apply the tartar emetic ointment to the affected side of the chest, and take the balsam copaiba, as recommended by Dr. Armstrong. He persevered in this treatment till considerable irritation of the skin was effected, as well generally as locally; but the symptoms continued unmitigated, and if any thing the expectoration increased in quantity, and became more sanguineous. Animal food appeared to exasperate the cough and expectoration; he was consequently ordered to discontinue it.

Oct. 24th.—He was much weaker; the pulse 86, and natural; the tongue slightly furred; desire for food not so great; and in other respects much the same.

R Quin. Sulph. gr. iv.; Conf. Aromat. q. s. ft. pil. ter in die. Emulsio Amygd. c. Tinct. Camph. Comp. tusse urgente.

27th.—He was stronger, and improved; the cough and expectoration continued; pulse regular and natural; bowels obstinate.

To have clysters administered as occasion might require. To continue the other remedies.

30th.—A small blood-vessel appeared to have given way in the substance of the lung; there was a considerable expectoration of mucus, mixed with fresh arterial blood; this produced very depressing effects on the patient, with profuse perspiration. The quantity of blood did not amount to more than between two and three ounces.

R Plumbi Superacet. gr. j.; Pil. Rhei Comp. gr. v. 6ta hora sumend.

31st.—The expectoration of bloody matter continued, but did not appear fresh; the patient had recovered from the depression he suffered yesterday; there was slight vascular excitement.

Pergat.

Nov. 4th.—The expectoration had become thinner, more in quantity, and slightly tinged with dark-coloured blood. He complained of his cough, a fluttering pain in his left side and pit of the stomach; also rheumatic pains of the left arm, which prevented him sleeping the fore part of the night. Appetite good; tongue clean; no evening exacerbations of fever.

R Pil. Opii, gr. j. h. s. sd. om. nocte. Pergat.

6th.—The bowels constipated; in other respects the same.

Sumat. Ol. Ricini, p. r. n.

10th.—The expectoration had increased in quantity, become thinner, and less tinged with blood; no fever; no night sweats; and in other respects much the same.—Pergat.

16th.—Slight ptyalism from the head; the expectoration amounted to nearly a pint in the twenty-four hours; complained of griping pains of the abdomen; bowels rather slow.

R Infus. Rosæ, c. Mag. Sulph. p. r. n. Continue other remedies.

17th.—He had thrown up several pieces of organized lymph in the expectoration, which continued very great, and the cough troublesome.—Pergat.

18th.—A large quantity of arterial blood had been voided by expectoration, amounting in quantity to about four ounces; it was fresh, and frothy. He was in a very depressed state: perspiration very profuse; surface of the body colder than natural; the action of the heart very feeble; pulse scarcely to be felt at the wrist, beating 64 in the minute; tongue and mouth moist. Complained of no pain; said he felt great oppression of the left side of the chest before the bleeding took place, and a very unpleasant smell in his breath. The bleeding came on as he lay in bed, without any apparent cause, and so very rapid as to leave no doubt of a large blood-vessel having given way.

Cont. Pil. ter die; R. Mucil. Acaciæ, ℥j.; Solut. Morph. Mur. ♏xv.; Pulv. Scillæ, gr. ij.; fiat haustus 3tia hora sumendus.

19th.—Had slept about two hours during the night; expectoration small in quantity, highly tinged with blood, but did not appear fresh; slight fever; pulse 90, and soft; had perspired during the night; tongue and mouth moist. On percussion, the left side of the chest sounded very dull. The stethoscope indicated the left lung much louder; the respiratory murmur could not be heard over the lowest part of the chest. There was a crackling noise (metallic sound), as if the air had escaped into the cellular membrane, between the lung and pleura; this was most audible at the upper part of the chest. Pectoriloquy was not distinguishable.

To continue the pill and draught every eight hours.

20th.—Had slept at intervals during the night, and surprisingly rallied. The expectoration was reduced to about four ounces in the twenty-four hours; it was more purulent, and less sanguineous. Pectoriloquy was again distinctly heard over the space between the sixth and seventh ribs, just before their angles.

Ordered a seton to be placed over the part where the voice was so distinctly heard.—Pergat.

29th.—Complained of unusual heat over the left side of the chest; much griping pain of the abdomen; the gums were swollen, and very dark coloured. The seton discharged healthy pus. The expectoration continued very abundant, containing large quantities of purulent matter, slightly tinged with blood.

Ordered a fold of linen rag, moistened in Spirit Lotion, to be constantly applied over the affected side of the chest. —Perstent omnia.

Dec. 6th.—He had improved; the expectoration continued very abundant; the cough short, and chiefly in the morning. The application of the spirit wash was very grateful. His appetite was good, and diet chiefly confined to nourishing fluids. The circulation of the blood natural; tongue clean; the bowels sluggish; no night sweats; no hectic. The seton produced a good discharge of healthy pus.—Pergat.

16th.—The expectoration still continued, occasionally tinged with blood; colic pains of the abdomen from the head; in other respects he has improved, and gained flesh.

Omit. Pilulæ. ℞ Pil. Opii, gr. iij.; st. sd. et repet. om. nocte.

1834, Jan. 2d.—Colic pains of the abdomen had been very severe at intervals since last report; the expectoration had increased, being not less than a pint in the twenty-four hours, and become more purulent. On percussion over the left side of the chest, under the left breast, more sonorous; over the upper and lowest parts of the chest, more dull. On the application of the stethoscope, the cavity appeared enlarged, pectoriloquy being much more distinct, and heard over a more extended surface; the respiratory murmur over the other parts of the chest dull, and at the posterior inferior part not to be heard.

Jan. 17th.—For some days past he had complained of a dull heavy pain, and unnatural heat in the left side; had not rested so well at nights; cough troublesome, more deep, and sonorous; the expectoration not quite so much in quantity; the pulse 86, and regular; tongue clean; bowels kept open by enemas.

During the evening he was suddenly seized with expectoration of blood, and the course of a quarter of an hour voided about four ounces of frothy arterial blood; this produced a great state of collapse; pulse scarcely to be felt; surface of the body much colder than natural, and covered with a clammy sweat. Said since the bleeding had taken place, the dull heavy pain had ceased.

To continue the application of the lotion, and take alum whey at pleasure. ℞ Pulv. Kino. Comp. c. Opio.; Pulv. Aluminis, aa. gr. v. M. ft. Pulv. 2da hora. ℞ Infus. Rosæ.; c Magnesiæ Sulphatis quarta quaque hora.

12th.—Slept but little during the night; expectoration trifling, and very sanguineous; skin moist, and warm; tongue furred; pulse 96, and rather sharp.

Contr. Pulv. ter die, et Mist. om. mane.

15th.—Has improved in every respect. Expectoration less in quantity, very purulent, and slightly tinged with blood.—Perstet.

Feb. 10th.—His general appearance was much better; he had gained flesh and strength. The expectoration had decreased to nearly half a pint in the twenty-four hours.—Pergat.

March 16th.—He appeared going on well till within a few days, when he complained of a dull heavy pain in the left side; expectoration performed with pain, and slightly tinged with blood; heat of the left side of the chest greater than natural; pulse 86, and irritable; tongue moist, and furred in the centre; no night sweats; no evening exacerbations of fever.

Fiat V.S. ad f. ℥vj.—Pergat.

20th.—Since last report there had been an increased expectoration, mixed with dark-coloured blood, and it had the appearance as if a fresh abscess had given way. The heat and pain had diminished; and in other respects much the same.

Applicetur Empl. Lyttæ lateri sinistro. Pergat.

April 1st.—Suppuration of the lung appeared considerably increased; constitutional symptoms still continue slight. A small blood-vessel gave way about noon, after which he expectorated about three ounces of blood, mixed with pus; considerable collapse followed, but not so great as before.

To continue the application of the lotion. ℞ Liq. Morph. Mur.; Tr. Ferri. Mur. aa. ♏xl. Mist. Camph. ℥iss. ft. haust. statim sumendus. ℞ Infus. Rosæ, f. ℥iss.; Solut. Morph. Mur. ♏x.; Tinct. Lavend. Comp. ♏xxx. fiat haustus quarta quaque hora sumend.

2d.—The expectoration continued tinged with blood; there was slight fever; and in other respects he was better.

Repet. Haust. ter in die; Cont. Lotio ut antea.

25th.—He complained of a great load over the left side of the chest. The expectoration had not been so free for two or three days; it was slightly tinged with blood, and a coagulum appeared in the sputa.

℞ Tr. Ferri. Mur. ♏x. ex cyatho aquæ frigidæ 6ta quaque hora, capiat. ℞ Solut. Morph. M. ♏xlv. Mist. Camph. f. ℥iss. h. s. sumend.

26th.—The expectoration and fresh blood continued, notwithstanding he had slept during the night. He had more vascular excitement than I ever observed him to have before.

Fiat V. S. ad f. ℥vi. ℞ Tr. Ferri Mur. ♏xxx. 3ta horâ.

The bleeding appeared to have been hurtful: the hæmorrhage increasing very rapidly during the day, he took a large quantity of the tincture, which caused him to be very sick and faint.

℞ Solut. Morph. Mur. ♏xxv.; Liq. Plumb. Subacet. ♏x.; Acidi Acetici, f. ʒss.; Aquæ, f. ℥iss. fiat haust. hora somni sumendus.

27th.—Had had a disturbed sleep during the night. In the morning there was no fresh blood in the expectoration; the skin was moist; slight increase in the temperature of the body; pulse 96, and weak; tongue moist. He complained of no pain.

Cont. Haust. nocte maneque. Perstent alia.

May 1st.—The expectoration had increased to nearly its former quantity, but free from blood. He was very weak; his appetite good; no hectic; the lead appeared to be acting upon the system.

Cont. Haustus hora somni.

19th.—The cough and expectoration continued; in other respects he had improved.

Ordered a caustic issue just below the left breast.

May 24th.—The issue discharged healthy matter, and he complained of it causing great heat over the left side of the chest. The expectoration was perceptibly less, but in quality the same.

Pergat.

27th.—For some days the expectoration had been considerably less, but very purulent; great dulness, oppression, and unnatural heat, over the left side of the chest; complained of having a disagreeable smell in his breath, like fresh earth, and said he had the same before the bleeding took place last time. Had not rested for some nights; pulse 96, and rather sharp; tongue covered in the centre with a white fur. About 8 o'clock in the evening, while his wife was changing his shirt, he felt the sensation as if hot water was pouring in the chest, and suddenly commenced expectorating very rapidly arterial blood, till from eight to ten ounces were voided. On my arrival he was in the greatest state of collapse, with the surface of the body covered with profuse perspiration; his hands, feet, and face, were quite cold; the pulse not to be felt at the wrist; the contraction of the heart very feeble: he could scarcely articulate, but motioned his hand to the chest, as the seat of all his distress.

To drink freely of Alum Whey, and continue the constant application of the spirit lotion. Cont. haustus 4ta hora.

28th.—Skin warm and moist; had laid very quiet during the night, but not slept; pulse 100, and very feeble; tongue and mouth covered with viscid mucus; expectoration continued tinged with fresh blood.

Pergat.

29th.—He had coughed up a large quantity of matter, very sanguineous; there was a disposition to fever last night; pulse 96, and very feeble; mouth and tongue more moist, and cleaner; urine small in quantity, and very thick; bowels relieved by clysters.

Remedies to be continued.

30th.—Had slept during the night; in other respects much the same.

Pergat.

June 29th.—Since last report he had gone on improving very slowly; he was not able to walk alone, and scarcely stand; the expectoration had continued varying in quantity, and always of a very purulent quality. There had been very trifling or no disturbance in the vascular system; the pulse continuing about 86 in the minute; the bowels torpid without medicine or clysters; no night sweats; no sickness; and the appetite continued good.

Cont. haustus omni nocte.

July 8th.—Called up, 4½ A.M. He had expectorated about four ounces of fresh arterial blood; he presented the same appearance as on the 27th of May, but the state of collapse was not so great. He had been excessively sick from the commencement, and vomited a large quantity of vitiated bile. To apply the spirit lotion as before.

℞ Plumbi Acet. gr. ¾. Pulv. Opii, gr. j fiat pil. 4tis horis sum.

9th.—The expectoration of fresh arterial blood continued, but not very rapid. He complained of much uneasiness in the left side of the chest; pulse 76, and very feeble; the surface of the body cool, and covered with moisture.

Perstet.

14th.—There was no fever; he rested well at night; pulse 86, and stronger; tongue and mouth moist and clean; the expectoration continued very sanguineous, but not fresh. He had been taken several times with a difficulty of breathing, and as if he should be suffocated; said he felt as if there was something placed in the air-passage, which he was unable to expectorate. He has, since last report, expectorated several large pieces of organized lymph, in appearance similar to the lining membrane of the bronchia.

℞ Zinci Sulph. ℈ss. in aquæ tepidæ lb. ss. Statim sumend. P.

18th.—Had had several paroxysms of difficulty of breathing; expectoration much less in quantity, and contained large pieces of lymph: from their appearances, I believe it to be the lining membrane of the abscess.

To repeat the emetic, and take an anodyne draught every night.

25th.—He had lost the heat of the left side of the chest; respiration more natural; appetite good; his general appearance much improved. He continued occasionally to cough up pieces of lymph; the expectoration was nearly all mucus, and in quantity not amounting to more than two ounces in the twenty-four hours.

To continue the draught every night.

August 10th.—Since last report he had expectorated very little, and that mucus. There appeared great contraction of the left side of the chest; his appetite, health, and strength, had improved surprisingly. When he used any exertion, it produced great perspiration and faintness.

To take increased nourishment, and a draught as occasion may require.

From that time he rapidly recovered. I examined the chest on the 29th of November, and found the left side much contracted. Pectoriloquy was not distinguishable; the respiratory murmur more distinct; and in other respects the respiration was natural.

A similar case to the preceding occurred in my practice in the autumn of 1831: to detail it, would be merely a repetition. The subject was that of a pauper, and he was seen by several medical men in this place, as well as by Dr. Hodgkin, of Guy's Hospital, when the poor man, finding his cure almost hopeless, was induced to seek relief. I believe, by all these gentlemen, as well as myself, he was considered to be labouring under tubercular phthisis; there being very distinct pectoriloquy, with profuse expectoration of purulent matter. There were evening paroxysms of fever, and great perspiration during his sleep in the morning, the only favourable symptom being the want of vascular excitement. This case also terminated by the expectoration of a large portion of organized lymph, which the man placed in spirit of wine; and there was, in my mind, no doubt of it having been the lining membrane of the abscess. After the expectoration of this membrane, the patient's chest considerably contracted, and he rapidly recovered his usual health. The last time I saw this poor man, he was able to get his living by daily labour.

Remarks.—By the assistance of that simple, but most useful instrument, the stethoscope, I was enabled, from the first, to distinguish the preceding cases from chronic bronchitis; pectoriloquy, which in both instances was very distinctly heard, together with the history and other symptoms then present, left no doubt but that ulceration of the lung, to some extent, had already taken place. But whether that ulceration had taken place from the inflammation having called into existence tubercles, or excited those which might have already existed into active action, or whether the continuance of the inflammation had created an abscess in the substance of the lung, and so produced ulceration, was a question of vast importance in our prognosis, and one not easy to decide. In all cases where there exists a vomica or imposthume in the body of the lung, there requires considerable caution in our prognosis; since, in the greatest number of cases, where there existed active ulceration with loss of substance, they have generally terminated fatally; and this has been ingeniously accounted for in consumption (and I presume it holds good in this form of the disease also) by Mr. Bodingford, who states it to be owing to the destruction of the cartilaginous matter in the lung. How far this may be the case I do not know, but I think it quite as plausible that the fatality of ulceration and suppuration may depend on the loose texture of the lung, and the great tendency the pus has to extravasation. I believe it is difficult, and sometimes almost impossible, to distinguish in the advanced stages of ulceration and suppuration of the lung from inflammation, between it and tubercular phthisis. There was some difficulty in coming to a direct diagnosis in the preceding case. The cough was short, tickling, and the expectoration slight, except early in the morning; there was great emaciation; the sleep was frequently disturbed; and some nights he was tormented with horrid dreams. But he had no night sweats, no concomitant hectic, no frequent change of the countenance, which are always present in true tubercular phthisis; and above all, the pulse never ranged more than 96 in the minute. This last symptom has been particularly insisted on by Mr. Maclure, as assisting in our prognosis, in a paper published in the 13th volume of the Medical Gazette. But that gentleman relates his as a true case of tubercular phthisis; I consider it a symptom of importance in our diagnosis of ulceration without the presence of tubercles. We had also considerable redness and heat about the upper part of the pharynx; but this I have frequently observed in true phthisis.

As the case advanced, it became more doubtful whether tubercles were not present. There was on the 20th of March a sudden expectoration of matter mixed with very dark-coloured blood, as if it had just been evacuated fresh from an abscess. Previous to this he complained of more heat and oppression than common over the affected side; but what was most to have been expected was shivering, sickness, irritative fever, and vascular excitement. The absence of these symptoms constituted one peculiarity of the case. The frequent discharge of blood shewed that the ulceration was progressive, and that the blood-vessels themselves were enveloped in the disease. The frequent and large quantities of blood which were voided, without producing great constitutional iritation, I think is unprecedented. It cannot be surprising that my learned friend, Dr. Turner, as well as myself, should have been mistaken in our prognosis, if we take into consideration that on the 26th of April and 11th of May, we left the patient in a state of collapse, from which we could scarcely expect him to rally.

Abscess of the lungs, originating in chronic inflammation, generally terminates speedily and fatally. Dr. Armstrong has related two cases where the disease was attended with symptoms, and put on the character, of an irregular ague; ulceration of the lung not having been suspected during the life of the patient. The preceding case admits a question whether tubercles were first excited, and softened down in the usual way, or whether two or more abscesses were formed from the continued inflammation. I am inclined to agree with Dr. Turner in thinking that the latter was the case; otherwise we should have had greater constitutional derangement, and consequently the disease have proved fatal.

I attribute the favourable termination of both cases to the formation of organized lymph, which seemed to have been the barrier to the further progress of the disease. The expectoration of this adventitious membrane, and the contraction of the affected side, were favourable to the patients' recovery.

In the treatment of both cases the patients were ordered to be kept in a warm room, never below 65°, and to live principally on suction. The superacetate of lead in each was given to a considerable extent. I question its beneficial effects. The muriate of morphia is decidedly to be preferred to opium, in allaying nervous excitement, without producing the severe headache and constipation which the latter remedy is apt to do. Throughout the case the bowels were obstinately constipated; probably owing to the liver sympathising with the affection of the lungs. The first venesection appeared to prevent an attack of the hæmorrhage: the blood contained a large quantity of serum, and the crassamentum was both cupped and buffed; the second abstraction of blood was decidedly injurious. The application of external irritants was not attended with that manifest relief I anticipated.

The application of the spirit lotion, as recommended by Dr. M. Hall, in the 13th volume of the MEDICAL GAZETTE, was particularly grateful to the patient: and although it possessed considerable influence in checking the hæmorrhage, yet it did not prevent its returning. I have frequently found this latter remedy, when applied as recommended by Dr. Hall, a great acquisition in the treatment of hæmoptysis and incipient phthisis: it doubtless deserves the attention of the profession.

W. R.

Grantham, Dec. 4, 1834.

CASE OF MALFORMATION OF THE HEART.

To the Editor of the Medical Gazette.

SIR,

I BEG leave to forward you the following account of a very unusual malformation of the heart which lately presented itself to my observation, in order that it may be made public through the medium of your valuable journal, should you consider it sufficiently interesting.

I am, sir,
Your obedient servant,
JOHN C. BLOXAM.

Newport, Isle of Wight,
December 8th, 1834.

Fanny B—, the sufferer under this curious structure, died at three years of age, very much emaciated, and smaller than many children only one year old. On opening the chest, the heart was immediately seen, of an enormous size compared with the growth of the child, lying transversely in the chest, with the auricles quite on the right side. The right auricle was greatly distended with blood, and in this state the heart was full three inches from apex to base, and of a corresponding breadth. The aorta, which contained venous blood, was disproportionately large, but otherwise of normal structure: the pulmonary artery, on the other hand, was so small as entirely to escape observation at this stage of the examination. The right auricle, the largest and most hypertrophied of the four cavities, was, in every respect, in the highest state of development; and the left, in the lowest. The parietes of the right ventricle, at their thickest part, measured one quarter of an inch, and those of the left nearly half an inch: the muscular fibre was firm, and the valves naturally formed. The foramen ovale, instead of being obliterated, would have admitted a goose-quill, but retained its valvular form sufficiently to render its temporary closure practicable. The aorta took its origin equally from both ventricles, and communicated as freely with one as with the other. The pulmonary artery opened only from the right ventricle; its parietes were extremely thin, and it was altogether so diminutive that its existence was discovered only by tracing its branches backwards from the lungs: it was there perceived on the posterior surface of the heart, collapsed, and bifurcating immediately on its exit, so that the trunk was not, in any part of its circumference, above a line in length: hence the case might have been liable to have been mistaken for one of total deficiency of the pulmonary artery.

A short history of the case during life will perhaps prove acceptable. Some days after its birth, the child was observed to be unusually dark, and this colour gradually became deeper. When about two or three weeks old, she was attacked with convulsive movements of the muscles of the face and arms, which recurred at shorter and shorter intervals, and were subsequently attended with great restlessness and uneasiness, an aggravation of the dark colour of the skin, and loss of sight. Any circumstance that excited or irritated the child was found to occasion these "fits", (as they were termed), and for some months previous to her death, she was, for the most part, in an extremely restless and uneasy state, with occasional intermissions, which bore all the appearance of approaching dissolution.

ANATOMY OF THE MEDULLA OBLONGATA.

ANSWER TO MR. MAYO'S OBSERVATIONS.

To the Editor of the Medical Gazette.

Sir,

Allow me to address to you a few words, in answer to Mr. Mayo's observations, in the last number of your journal, on my uncle's, (Sir Charles Bell's), last paper to the Royal Society, describing several new and highly-important points in the anatomy of the medulla oblongata.

Mr. Mayo has broadly denied his facts. He is well aware, from the general tenor of Sir Charles Bell's conduct towards him, on former occasions similar to the present, that he will not make any answer to his strictures.

Notwithstanding the numerous attacks which Mr. Mayo has lately thought proper to make, through the medium of your journal and otherwise, upon the character of Sir C. Bell as an anatomist and physiologist, Sir Charles's conduct towards him in this hospital, as his colleague, has been uniformly marked by the most scrupulous politeness; and I take this opportunity of stating, that I have never known him, even under the most trying circumstances, to express the least disrespect towards Mr. Mayo, either by word or deed, in the presence of any of the pupils, or on any occasion, at the hospital, to allude to Mr. Mayo's claims as a physiologist. Mr. Mayo's conduct has been different, and such as to lead me, however unwillingly, to break through the rule I had laid down for myself on being appointed to an official situation under him, never, while I held that office, to enter into any discussions on the subject of his pretensions to my uncle's discoveries in the nervous system.

The other day, in the dead-house, in the presence of a number of pupils, Mr. Mayo asked me if I had seen the paper above alluded to. I said I had. "Well," said he, holding a portion of recent brain in his hand, "a decussation or union of the posterior columns of the spinal marrow is there described." "There is no such thing." "I will show you;" and he proceeded to separate the posterior columns with the scalpel. I told him I had both seen and made the dissection, and knew its delicacy and difficulty; and that it was impossible to show any thing, either one way or another, on the soft brain. He then asked me if he was dividing any thing, and proceeded in his demonstration. I answered, that he was separating the lamina of the septum, which, if he dissected carefully, on a well-hardened brain, and followed downwards to its termination, he would readily find the decussation. He answered, "Exactly, but I have been familiar with the hardened brain ever since I entered the profession, and have often looked for a decussation, and know that no such thing exists."

Now it was evident to me that he did not even know the septum which was to lead him to the union of the columns, and without a careful dissection of which it was scarcely possible that any man could discover the decussation. And I understood the plain English of this public demonstration, directed to me, in my own den, as it were, to be—your uncle and master is a fool, and a visionary; and you were deceived when you thought you saw it, and I now call upon you to confess it. This sort of demonstration was publicly repeated in a triumphant manner to Sir Charles Bell's apprentices and more immediate pupils, and more than once to myself, so as in a manner publicly to call upon me to answer his objections.

If the decussation of the anterior columns, which nobody now thinks of denying, was a matter of dispute among anatomists for twenty years, we cannot be surprised that Mr. Mayo should not have succeeded, in the one short week that the paper alluded to has been before the public, in finding that which has been described in the posterior columns; confessedly a much more difficult piece of anatomy, even if he used hardened brains instead of recent ones, and more especially if he has not followed the method of dissection pointed out by the discoverer But I confess I am surprised to find him already thus positively denying its existence. On the tone in which this denial is made, every one can make his own comment. Suffice it to say, however, that I have made a dissection of this part, and, as the Hunterian museum is at present closed, have sent it to the museum of the University of London, that every one may have an opportunity of comparing the evidence of his own senses with that of Mr. Mayo.

The mode of making the dissection is this:—a portion of brain that has lain for several months in strong alcohol must be taken; for we are again and again informed, in the course of the paper, that without this requisite it will be in vain to attempt to follow the dissections described. An incision, with a fine knife, is to be made through the outer pellicle, on each side of the calamus scriptorius, and a lamina of transverse fibres, about as thick as paper, can then be separated from the longitudinal fibres of the sensative columns. When this is separated on each side, it looks like a sort of partition wall between the two columns; and when traced downwards, it is found to terminate abruptly at a point corresponding to that at which the anterior columns commence their decussation on the opposite side. Just below where the septum terminates, bundles of fibres may be seen to pass from the one posterior column to the other.

Since I have noticed Mr. Mayo's denial of Sir Charles Bell's facts, which forms the first part of his letter, it may be well also to notice the addenda, comments, or whatever they may be called, which form the latter half. The tone in which they are written, I have already said, I will leave to the judgment of others.

"There is a point in the anatomy of the anterior pyramids," he says, "with which he (Sir C. B.) is evidently unacquainted, that accounts sufficiently for the pathological phenomenon" (viz. the loss of sensation, as well as of motion, on the side of the body opposite to that on which the brain is affected.) "The lower terminal fasciculi of each of the anterior pyramids are not continued into the anterior *fasciculi* of the opposite half of the spinal marrow, but plunge into its *centre*, and therefore should be expected, if they are the route of the *decussation of symptoms*, to cause the loss of *sensation* in the parts supplied by the spinal nerves, no less than the loss of motion."

I believe I know to what "point of anatomy" Mr. Mayo here alludes: it is a sort of knob, or union, between the anterior and posterior columns of the same side, which Sir Charles Bell pointed out to me some months ago, among many other curious points of anatomy in this interesting region, as resting for future investigation. But how the plunging of the fibres of a *motor* column into the centre of the spinal marrow (I know not what part is meant by this expression), or any where else, could account for *sensation* being lost on the side of the body opposite to that on which the brain is defective, I profess I cannot understand.

Again, Mr. Mayo has chosen to go out of his way for the purpose of criticising the engraver; for though a single false line does give the spinal accessory the appearance of arising from a wrong place, it is in the plate only an accessory, and has nothing whatever to do with the demonstration.—I am, sir,

Your obedient servant,
CHARLES W. BELL,
House-Surgeon to the Middlesex Hospital.

Dec. 21, 1834.

ANALYSES AND NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

Cours complet d'Histoire Naturelle Médicale et Pharmaceutique, ou Résumé des divers traités concernant l'histoire, la description, les proprietés, et l'usage des substances medicamenteuses, tirées des trois Règnes. Première Livraison. Dulau.

THE progress of natural history in each of its three kingdoms, and more particularly the great advances made in the several sciences collateral with medicine, of late years, have thrown open a vast field for the labour of compilers, though we have not found that, in general, they have hitherto availed themselves of the opportunity. The present work, which is just begun at Brussels, gives fair promise of supplying what medical readers must have long felt as a desideratum—a well-arranged compilation of the objects of materia medica. A considerable portion of the animal part is already completed; and for this purpose the *Règne Animal* of Cuvier is largely laid under contribution. Among the other treatises mentioned in the preface as affording ample fund of information in their several departments, we observe Dumeril's *Traité elementaire*, Richard's *Botanique Médicale*, Drapiez's (who, by the way, is the editor) *Manuels de Chimie et de Mineralogie*, various articles from the two great dictionaries, *D. des Sc. Med.* and *D. des Sc. Naturelles*, and the numerous productions of Barbier, Milne-Edwards, Rattier, Levasseur, Chevalier, Alibert, Lesson, &c. With such resources the Brussels *resumé* cannot but prove a most desirable acquisition for every class of medical men, practitioners, teachers, and *litterateurs*, as well as for students.

Judging from the portion of the work now before us, we should say that most probably it will be well executed: when we have further acquaintance with it, so as to be enabled to form a more definite opinion, we shall speak more positively. The plates are excellent lithographs, of royal octavo size, and will amount to 150 in number. The letterpress will occupy two octavo volumes, in double columns. The price besides is exceedingly moderate, so that in every sense economy, as well as utility, is primarily consulted.

Des diverses Méthodes pour l'Oblitération des Artères, par LISFRANC; *De la Reunion immédiate des Plaies*, par SANSON; *Memoire comparatif sur l'Hist. Nat. de l'Insecte de la Gale*, par RASPAIL. Dulau.

THESE three productions have just issued from the Belgic press, forming a pocket volume. It is rather a curious collection. The first two, however, have some relationship, being the offspring of the late concours in Paris; but the third might certainly have better made room for the thesis of some other competitor, such as Blandin or Velpeau: as it is, perhaps Raspail's memoir constitutes the principal attraction. It is printed verbatim from the Paris copy, and accompanied by the lithograph plate. By the way, touching the said itch insect, it is a very extraordinary fact that none of our observers have succeeded in detecting it, notwithstanding the minute directions given for the purpose by Raspail and others. From Moufet's remarks in his Theatrum, it would seem that *he* had some personal acquaintance with the *Sarcoptes hominis*, and so perhaps had Sir Theodore Mayerne, as he seems to insinuate in his preface, dedicatory to Moufet. But since that time, three centuries back, nobody has succeeded, in this country, *in* the detection of the parasite. Baker, Canton, Willan and Bateman, Adams, Heberden, J. Hunter, and numerous others, have failed. We happen to know of some late attempts to find the animal, but they have not been attended with the least success. Is it not likely that the itch in this country is not accompanied by the insect—or that at least the animal is not present in every kind of itch?

Anatomischer Atlas des Menschlicken Korpers, in 84 Tafeln und erklärendem Texte. Von Dr. M. J. WEBER, Professor zu Bonn. Schloss.

THIS magnificent work is now complete, the sixth and seventh parts having just been received in London. Among the objects represented in the sixth *lieferung*, we find the vessels and nerves of the anterior portion of the system, including the brain, spinal marrow, and the *nervus sympathicus* in situ; the lymphatics, the thoracic aorta, the abdominal vessels, with reference to hernia, &c. In the seventh, the posterior portion of the frame is exhibited, with special regard to the vascular and nervous systems; and among other plates, we observe one representing the descent of the testicles through the rings, and another giving the chief objects in general anatomy. Sir Astley Cooper's work on the Testicle is laid freely under contribution for the former. The Atlas, on the whole, must be seen and examined, in order to be appreciated: mere description might run on to any length, and yet totally fail in conveying an adequate idea of the production.

MEDICAL GAZETTE.

Saturday, December 27, 1834.

> "Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."
>
> CICERO.

ALLEGED NEGLECT AT HOSPITALS.

THERE are some subjects which our contemporaries take up as never-failing topics of declamation, and on which they ring the changes every time they are at a loss for "a leader"—we mean the abuses which they allege exist in our hospitals. First we are told, that the officers ought to be elected by *concours*, after the manner of France, where the said concours excites more jealousies, more clamour, and more editorial bile (if possible) than the election by canvass and voting among us. Next, we are informed that the business of our hospitals is very badly conducted; that every thing is done in *holes and corners;* that the only object is to cheat the pupils, first out of their money, and then out of their opportunities of acquiring knowledge. Again, we are given to understand that the patients are looked upon as mere pieces of matter, fit to undergo a certain set of experiments; and that they are frequently "murdered" (we use the language of one of our fraternity) for the edification of the physician or surgeon in attendance.

We have often endeavoured to solve the problem, do the writers really believe what they assert?—but we have never come to a satisfactory solution of the difficulty. Mr. Wakley, indeed, the most outrageous of the scribes in question, and who especially treats his readers with stories of "blood," it is notorious, dare not shew himself within the walls of any hospital in London (excepting always that of the *University*), and, neither knowing nor caring about the matter, evidently writes just what suits his purpose at the moment, and can get up a case for his journal and the newspapers, such as shall make the reader's hair stand on end, without any trouble to himself, though certainly, in many instances, it must be added, without the slightest regard to truth, or even to verisimilitude. This is his peculiar province, in which he stands unrivalled among the writers of fiction; but there are other points in which he is followed by those who ought to know better: for instance, there is a constant cry in the periodicals that pupils are neglected at the hospitals. If there be any hospitals where this is the case, either generally or with respect to individual officers, let them be named; but do not let sweeping charges be indulged in, which, taken as of general application, we most positively and explicitly deny. We challenge the parties in question to come to particulars. Let them give time, place, and person, and we shall know how to deal with them.

The time which the pupil can spend in the hospital, especially during the winter, is very limited, owing to the number of lectures which he has to attend, and probably does not exceed two hours —viz. from 12 to 2, or from half-past

12 to half-past 2; but during this period we know that, at the principal hospitals, every facility is afforded him of visiting the patients with different physicians or surgeons in succession; and if there be any instances in which those gentlemen are not willing and anxious to impart instruction, certainly these constitute exceptions to the general rule. Again, notes of the cases are kept, which are open to the pupils; and in some hospitals, cards are placed at the head of the beds, with every prescription written upon them. The pupils in succession are employed by the physicians as clerks, and by the surgeons as dressers (the former without any additional charge.) In those cases which end fatally, public examinations, without disguise or concealment, take place; and lastly, clinical lectures, or bed-side remarks, are made, so as to impress upon the student the chief points deserving his attention. What, then, would our contemporaries have? It is easy to find fault where criticism is a profession, and where the object is to write *about it, and about it*, to fill up a certain space. There can be no doubt that there was formerly much ground for complaint; but they who deny that very great improvement has taken place, are either very ignorant or very uncandid. True, if there were more time in which to conduct the hospital visits, they might be done better; but while the time is so limited, we doubt very much whether more can be effected to aid the studies of the pupil than is already in operation.

One injury, and a great one, done by those who cry out for "reform" in our hospitals, is, that they lead the pupil to suppose that he has nothing to do for himself, but that all is to be done for him; that if he does not learn, the fault is his teacher's, not his; that he may walk through the wards with his eyes half-shut, without looking and examining, and not-ing and reflecting, for himself. The hospitals of former times produced John Hunter, and Cline, and Abernethy; and are St. George's, or St. Thomas's, or St. Bartholomew's, in any respect inferior as schools now, to what they were when those great men were students? Are they not, on the contrary, in every respect very greatly superior, in the opportunities and means of instruction they now afford? But these men had eyes, and hands, and heads, which they used for themselves. Let not students of medicine or surgery be deceived, then: the hospitals afford them invaluable *opportunities;* let them only give their attention with a willing mind to the cases, and listen with a candid temper to their teachers, and we are confident they will find every day add something to their stock of knowledge. "Nulla dies sine linea," was the maxim of a great artist of antiquity, and we can recommend none better to imitation at the present day.

ENCOURAGEMENT GIVEN TO ANATOMY IN FRANCE.

We are constantly referred by the writers above alluded to, to the usages of France as fit objects of imitation, and as contrasting strongly with our institutions here. What will our readers think when we inform them, that, by recent decrees, the privilege of conducting dissections is limited to two establishments (viz. le Clamart (?) and the Ecole de Médecine;) while, with regard to autopsies, the physicians to the hospitals *are prohibited from opening more than one body out of every three!* a pretty pattern for imitation, truly.

FRENCH MEDICAL GRADE AND THE *CONCOURS*.

Circumstances have just occurred in Paris, which place in a strong light at once the jealous distinction of grade, and the warm feeling in favour of the concours, entertained by the most distinguished professional men in that metropolis. The place of surgeon in one of the hospitals having become vacant, a physician in the same establishment was exerting his interest to obtain the nomination; but the surgeons of the Central Bureau immediately protested against the proceeding, and petitioned the Minister of the Interior on the subject. "It is contrary to all precedent," they say, "that titles should thus be transformed;" and they quote the law which allows medical men to be transferred from one appointment to another, but only *in the same quality*: the physician, in fact, even though he be a Doctor of Surgery, must still remain a physician, while attached to the same hospital: by the concours alone can he obtain a surgeoncy.

The protest against violating the law of the concours is signed by MM. Dupuytren, Berard, Dubois, J. Cloquet, Roux, Breschet, Velpeau, Richerand, &c.; and we must say, that we have seldom observed a measure, emanating from our Parisian brethren, more unanimously or more respectably supported.

FATAL INADVERTENCE IN PRESCRIBING.

A case was tried last week before the Correctional Chamber of Paris, involving a serious charge of homicide by imprudence. A medical man was called in to a child, three years and a half old, who was suffering under fever. A prescription was written, in which it was intended to order for a lavement eight grains of *sulphate of quinine*, with a few drops of laudanum. But the prescriber having just previously been engaged in a warm conversation with a medical friend concerning *acetate of morphine*, inadvertently wrote down that potent drug, instead of the quinine, in the prescription. The apothecary who dispensed it did nothing towards rectifying the error, except reducing the quantity to five grains Scarcely was the lavement administered when the child experienced a sinking sensation; the skin became of a violet hue, and was covered with large drops of perspiration.* Convulsions ensued, and death with great agony in a few hours. The Court severely censured the conduct of the apothecary for making up a prescription so palpably incorrect; but, owing to the mitigatory circumstances, the accused prescriber was let off with a fine of 600 francs, and costs.

PATHOLOGICAL LECTURES;*

Delivered in King's College, London,

BY

PROFESSOR MAYO, F.R.S. &c.
Surgeon to the Middlesex Hospital.

VIII.—*The Voluntary Muscles—Tendons—Bursæ Mucosæ—Filamentous Tissue—Aponeuroses—Adipose Tissue.*

I. *Of the voluntary muscles.*—The higher endowments of the voluntary muscles open a new field in pathology: we have to study in them, not only the changes of structure which their tissue displays, but the alterations or modifications of their properties and functions, which are liable to occur without any visible deterioration of texture.

The voluntary muscles are liable to palsy, which may affect, either their sensibility, or their motion, or both. The first case is termed anæsthesia. When met with (and that is rare) it is combined with loss of cutaneous sensation, and is confined to the extremities. The second case is of more frequent occurrence: it is met with, for instance, in the paralysis which attacks one side of the face. The combination of the two is frequent, and occurs of every degree, from numbness and weakness to total insensibility and powerlessness. The voluntary muscles are liable to be the seat of pain: thus, in cancer of the breast, muscular pain is often felt at the insertion of the deltoid, at the elbow, and in the back. The voluntary muscles are liable to be thrown into involuntary action. This state is called cramp, or spasm: its duration is either instantaneous, or of longer continuance. Ordinary cramp of the gastrocnemii and of the muscles of the great toe, bears the latter character; so does the spasm in locked-jaw, tetanus, cholera. Of the former kind of spasm I recollect a remarkable instance: a workman had struck a chisel through the lower tendon of the rectus; three or four days afterwards, spasms began, which in a short time recurred once or twice in a minute;

in them the leg was suddenly raised, with the knee straightened.

The affections which I have thus enumerated belong, however, rather to the nerves than to the muscles; not the pain only, but the spasmodic action likewise. When tetanus has been produced in animals by affecting them with strychnine, the spasm is found to be temporarily suspended upon making pressure upon the spinal marrow.

The transition from these affections to changes of structure in muscle, is found in the permanent and rigid contraction of the sterno-mastoid, which causes and constitutes wry-neck.

The alterations, which the texture of voluntary muscles is liable to undergo, are the following:—

a. When a muscle has been divided, it may reunite in one or other of two ways—according as the skin covering it is torn and remains ununited, or otherwise. In the first case, the reparation of the muscle is preceded by inflammation and suppuration: from the inflamed surfaces lymph is poured out, which coagulates, and, adhering to it, becomes organized, and forms granulations. The latter growing by fresh exudation of lymph, fill the vacuity caused by the retraction of the torn fibres. The organized medium of union subsequently contracts, and the divided ends of the muscle are drawn towards each other, and finally become directly reunited. In the second case—namely, when the skin is entire, and inflammation, suppuration, and granulation do not take place—the medium of union is infiltration of the cellular tissue surrounding the torn muscle with lymph, which forms a kind of callus that becomes organized, and finally contracts, like the uniting substance that proceeds from inflammation. The soft texture of muscle is easily cut through, or lacerated. It has been ruptured by its own action, and, in the instance of the abdominal muscles, by a bruise which has not torn the skin.

b. The voluntary muscles are liable to hypertrophy. I saw in a young woman the tongue enlarged to five or six times its natural size, which, projecting permanently from the mouth, had caused the corners of the mouth to ulcerate.

c. The voluntary muscles are liable to atrophy. This proceeds either from age or from disuse. In the first case, the muscular fibre becomes paler, and thin layers of fat are often found deposited in the interstices of the fasciculi. In the latter case, as upon the disuse of a limb from disease of a principal joint, the muscles become thinner and paler, and lose their firmness. One remark, which deserves to be borne in mind in surgical operations, I have made upon the extent of retraction upon division in extenuated muscles: it is considerably greater in these than in the firm and well-developed muscles of a strong adult.

d. There is a degeneration of muscle, which is called steatosis: it is somewhat different from atrophy. Without losing its volume or its fibrous character entirely, the affected muscle becomes of a lighter colour, and greasy, and seems to be in process of conversion into firm lamellated fat. This change is sometimes attended with great pain of the muscle affected.

e. The voluntary muscles are susceptible of inflammation, abscess, sloughing.

In the arm of a subject in which death appeared to have been occasioned by phlegmonous erysipelas, I found the muscles of the fore-arm and upper-arm full of small abscesses.

In a case of ulcer of the leg, which spread rapidly, without any general taint of the system, the aponeurosis of the anterior muscles sloughed; when a singular tumour and protrusion took place of the unsupported and inflamed and granulating muscle, which, for a time, conveyed to some who witnessed it the impression that it was a malignant growth.

Acute rheumatism is said sometimes to be attended with the effusion of a jelly-like fluid in and upon the muscles attacked.

Gouty inflammation of muscular texture is occasionally followed by the deposit of lithate of soda between the fasciculi.

Muscle is liable to be involved in or to be the seat of all the malignant growths.

The liability of muscle to ossification has been already mentioned.

One species of entozoa [cysticercus cellulosæ] has been found in human muscles.

II. *Of tendons.*—Tendon is the seat of the following changes:—

a. When torn, its reunion takes place in this manner, which I have verified by experiment. The adjacent cellular membrane swells through an infiltration with lymph. The torn ends of the tendon, which have been drawn apart by the tone of the muscle, are at first imbedded in the thickened mass of infiltrated cellular tissue, without having any strong adhesion to it; in the progress of restoration, the infiltrated membrane becomes a firm callus, cohering with the sides and ends of the tendon, with which it at last becomes inseparably joined; at the same time it becomes denser, whiter, firmer; and shrinking in volume as it gains strength, it approaches more and more to the character of the tendon which it unites.

b. Tendons are susceptible of inflammation. In acute rheumatism, the tendinous structure is certainly involved;

and in gout, the gouty concretion is found deposited in tendon. In the tendo Achillis, and probably in other tendons, small painful swellings occasionally take place in persons who take much and irregular walking exercise: these swellings become less, and cease to be painful, when less exercise is taken.

III. The *bursæ mucosæ* are the joints of tendons. When tendons play over periosteum, or ligament, or cartilage, sacs of synovial membrane are interposed between the surfaces which move on each other. Similar sacs of synovial membrane are met with between the skin and tendinous, ligamentous, or periosteal surfaces, over which the skin has much motion; and what is very singular, similar sacs are liable to be produced in places where they naturally have no existence, upon unusual pressure being made there. Thus ganglions are often met with on the wrist, produced between the skin and the posterior annular ligament.

a. The affections of the synovial sheaths of tendons are no less troublesome than simple. As far as I have seen, they are limited to two varieties of subacute inflammation; one in which the inflamed membrane contains an increased quantity of synovia only; the other in which small portions of lymph, generally smooth and of an irregular shape, are contained in the increased synovia.

A young woman has recently left the Middlesex Hospital, who was under my care for the first of these affections. She had a painful swelling behind and below the outer ankle-joint, which evidently consisted of fluid in the sheath of the tendons of the peronei. With rest, as had happened on former occasions, the pain and tenderness of the ankle went away; and I succeeded, by applying irritants to the skin, in producing absorption of part of the fluid.

The second of these affections I have twice seen in the fore-arm. In one case the swelling was towards the wrist, and I entertained no doubt as to its nature. It was attended with no pain or increase of sensibility; and it mended, and seemed disposed to get well, upon repeated puncturing; when I lost sight of the patient. In the other case the fore-arm was generally and greatly enlarged, and I was not without my fears that it was affected with malignant disease; but on puncturing the swelling, synovia, with portions of lymph floating in it, escaped, and the intermuscular swelling diminished. I punctured the swelling twice, when the patient being better left the hospital, and I heard no more of him.

The subcutaneous bursæ present the following features under disease:—

α, Without thickening or pain, or with very trifling pain, there may be increased secretion of synovia. This affection is most frequent in the subcutaneous bursa of the patella. The appropriate treatment for it is rest, with the application of some irritant to the skin. If this method fails, in alternation with it, simple and repeated puncturing may be used. It *often* happens that the fluid thus once let out does not re-collect.

β, Great thickening and induration of the synovial membrane, with slight effusion of fluid. The best practice in this case is the excision of the subcutaneous bursa. I have cut out thickened bursæ both on the wrist, and at the outside of the head of the tibia; they were in each case, I believe, synovial sacs, that had been developed from pressure; for, in general, no bursæ are met with at the points where these occurred.

γ, With considerable thickening great effusion of fluid. A middle aged woman was admitted into the Middlesex Hospital, with a large tumor in front of the knee-joint, with which I could satisfy myself that it had no connexion. Upon puncturing it, eight ounces of a dark-brown viscid liquid escaped. The cyst then inflamed and suppurated, producing a considerable degree of fever, which lessened upon making three or four openings half an inch in extent, at the different corners of the suppurating synovial membrane, and the patient recovered.

δ. Without thickening or effusion previously observed, sudden inflammation, with swelling of the parts around, and redness of the skin. This is not uncommon in men as well as women at the subcutaneous bursa of the patella: it appears to involve the knee joint, but it does not. Upon opening the bursa, which in such an attack suppurates early, the inflammation subsides, and the synovial cavity, in the process of healing, becomes obliterated.

IV. *The filamentous tissue.*—The filamentous tissue, or cellular membrane, in one of its relations, forms the joints of the voluntary muscles; viewed in another, the slender and almost mucous threads of which it is composed with the cellular interstices between them, constitute a channel, through which the whole frame may be rapidly traversed by any fluid that has been introduced or produced at a single point.

a. It is in the last relation that the filamentous tissue will be first considered.

1. *Emphysema.*—The filamentous tissue may be distended with air, which causes

a uniform swelling, crepitating, or emitting a crackling sound, when pressed. The situations in which this swelling may begin, vary with the cause by which it is produced. It may take place spontaneously, when it is commonly general, and is supposed to be a product of secretion. It may arise from rupture or laceration of the mucous membrane of the larynx or windpipe, when the swelling appears chiefly over the face, neck, and upper part of the chest. It may succeed a broken rib, or any injury of the lungs, when it appears sometimes over the neck, face, and chest; sometimes over the chest and side only. It may arise from rupture of the bronchial membrane during violent efforts; and in this manner emphysema happens in puerperal women. Lastly, it may appear as an effect of gangrenous inflammation and mortification, when it is confined solely to the affected limb. In the latter case, air is produced by the decomposition of the serum of the blood in the morbid parts[*]. In examining the body of a person who died after injury of the lungs, with emphysema, on dissecting back the integuments and adipose tissue of the chest and abdomen, the cellular membrane appeared like bubbles upon the muscles, from which, when pressed, the air partly passed on into the adjacent cells, partly escaped.

2. *Serous infiltration, œdema, anasarca.*—Under the operation of various causes, of which the commonest is delay of the circulation from disease of the valves of the heart, the quantity of serous fluid in the filamentous tissue may be considerably increased; and this increase gives rise to a pale, white, or wan-coloured and cold swelling of the skin, which is distinguished by receiving the impression of the finger, or any other substance forcibly applied. When this swelling arises from a cause of such general influence as obstruction in the heart, the effect is necessarily general likewise; but from the free communication of the cells of the filamentous tissue, the fluid gravitates to the lower part of the person.

3. There are occasions on which the fluid with which the filamentous tissue is infiltrated is not simple serum, but has an acrid and stimulating quality. This is observed in the fluids of the cellular membrane adjoining a part bitten by a venomous serpent; or in the swelling which, in unwholesome constitutions, rapidly follows a severe injury, such as a compound fracture; or in phlegmonous erysipelas.

There is nothing more formidable in surgery than the second case to which I have adverted. An instance is now before me. A labourer, of a full gross habit, yesterday morning early was thrown down by a waggon, the wheel of which passed over his knee, causing a compound fracture of the inner condyle of the femur, and opening the knee-joint. He refused to have the limb amputated. At this time, thirty hours after the accident, the thigh, nearly to the hip, is swollen to nearly double its natural size, the veins full, and the skin mottled with large patches of red: the ordinary hue of the skin which attends this form of swelling, when its progress is something less rapid, is a pale coppery tint.

In the third case, a modified practice, founded upon that of Mr. Copland Hutchison and of Mr. Lawrence, is peculiarly useful. The most striking instance of its efficacy which I recollect is the following. A medical student, then an assistant at the Marylebone Infirmary, had poisoned a wound on his finger in examining a body. The worst form of symptoms supervened; he was attacked with shivering, with fever of a low character, and nervous irritability; there was no affection of the lymphatic system, but some tumefaction of the arm, and a large swelling upon one side of the body. Sir Benjamin Brodie had seen this patient, but being out of town, I happened at the moment to be sent for. The patient's breathing was oppressed; the cellular membrane on the side was swollen, without fluctuation; the skin was hard, brawny, and of a dark red colour. I made an incision through the skin and the thickened subjacent membrane; some serum and about six ounces of blood escaped; the tension of the side was thus lessened, and the patient mechanically relieved. From that period he mended, and finally recovered; but such had been the diffusion of acrid humour through the cellular tissue, that abscess formed not only in the shoulder and on the side which I had opened, but below the pectoral muscle, and the integuments of almost the whole back.

b. The cellular membrane, when divided, readily unites. I have already adverted to its efficiency in uniting other parts. In the restoration of a broken bone, a divided fibro-cartilage, a ruptured ligament, a divided tendon, muscle, or nerve, it is the surrounding cellular tissue, which, becoming infiltrated with lymph, forms the firm glue-like capsule, in which the divided parts are contained, and the process of organized reparation commenced.

c. The cellular membrane in phlegmonous erysipelas constitutes a medium along which an acrid humour rapidly finds its way, the presence of which contributes to excite suppuration and sloughing. The cellular membrane is no less the ordinary seat of common phlegmon. Phlegmonous or circumscribed inflammations often occur immediately below the integuments of the arm, and of the thigh. The same often form in the nates, and about the anus. A common boil is a small phlegmon, with a central slough of cellular membrane,—a carbuncle, a large and virulent boil.

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[*] The observations in this paragraph, and in the next, are taken, nearly word for word, from Craigie's Elements of General and Pathological Anatomy—a very excellent treatise.

d. Chronic abscesses have their seat in the cellular membrane, both below the skin and in the intermuscular and interfascicular spaces, the muscular fibre being absorbed to make room for the enlarging abscess. Such abscesses forming without pain, contain vast collections of fluid, which is commonly serum, containing flakes of lymph. Sometimes the serum is deeply tinged with blood. Abscesses of this kind are met with in the thigh; and with proper care, they commonly do well. It has been mentioned, that the chronic abscesses which form in the loins, and which usually point above the posterior part of the crest of the ilium, or below Poupart's ligament, are commonly connected with disease of the vertebral column. In that case, as far as my recollection serves me, the fluid of the abscess has more of a puriform character.

e, Another kind of abscess, which I suppose is the apostema frigidum of authors, occurs in the cellular membrane. The two following cases may serve to exemplify this disorder. In the first of the two, the inguinal lymphatic glands participated in the disease.

A middle-aged man had had for several months a tumor in the groin, which had formed very slowly; it was about the size of two half oranges, but presented three or four rounded elevations; he had experienced little pain in it. Shortly before his admission into the Middlesex Hospital, the skin had become red and softer at one part of the tumor. The swelling had greatly the appearance of malignant disease. The soft and red integument now threatened to slough; I punctured it, when a little air and fœtid ichor escaped. The integument, by sloughing and ulceration, in a few days gaped for some extent, and nodular granulating masses were seen within. No further unpleasant feature, however, presented itself; and without any great quantity of discharge taking place, the swelling slowly subsided, and the part healed.

There is a middle-aged man now in the Middlesex Hospital, who was admitted eight weeks ago, with the calf of the leg immensely swollen, the skin of a dark red, with a small hole in the middle, through which some thin pus found vent. Some months before, he had been kicked by a horse on the calf of the leg, to which he attributed the swelling. Placed in bed, and the leg poulticed, the swelling diminished at first rapidly; the discharge, however, was very inconsiderable in quantity. A probe being introduced, passed below the gastrocnemii; the external wound was enlarged a little; the abscess got well. But at the same time this patient shewed me a swelling on the back of the fore-arm, as large as, and much of the figure of, two half walnuts; it had been a year forming, and latterly had become painful; it adhered to the periosteum covering the posterior edge of the ulna and to the aponeurosis. My attention was now drawn to the general health of the patient, and I found that he had had for many months a scaly eruption upon the skin; and he said that a year before, a tumor like the present, only less, had formed at the corresponding part of the other arm. I gave him, upon this, the decoction of sarsaparilla, with the oxymuriate of mercury: his health began to improve, and the scaly eruption to die away; but the lump below the elbow increased in size. I therefore punctured it with a lancet in three places, where it was most elastic; it bled freely, and at one part small fragments of lymph escaped with the blood. The swelling was poulticed, and is now beginning to suppurate, and lessens daily.

f, The various morbid deposits and the different forms of encysted tumors, are met with in the cellular tissue.

V. *Of aponeuroses and fasciæ.*—The principal part which these textures play in disease is mechanical; they are tense, strong, and unyielding; they bind the flesh of the limbs; but what is salutary support in the healthy condition of a limb, is liable to become painful and mischievous tension and confinement in disease. This the surgeon can easily relieve. I shall describe two especial affections of the aponeuroses.

The first is simple inflammation, it is the most frequent untoward consequence of ordinary bleeding. The wound festers; the arm and fore-arm adjacent to the elbow are swollen, painful, and the skin has a slight blush upon it. Rest, cooling medicines, fomenting, and a raised position of the limb, in a few days relieve the inflammation.

The second case is rarer; it is a part of lues. I have seen, in connexion with syphilitic periosteal inflammation and suppuration on the tibia, inflammations with suppuration on the aponeuroses of the arm and leg, bearing a close affinity to the periosteal nodes.

VI. *Of the adipose tissue.*—The most remarkable circumstance with which I am acquainted respecting this texture, is its increase in animals after the removal of the spleen. This increase begins in dogs (upon two I made the experiment), as soon as they have recovered from the abdominal wound. The duration of the obesity is temporary: before a year is passed, the animal returns to its former weight and degree of spareness.

The adipose tissue readily unites when divided; and if the wound heal by granulation, presents, in the process of restoration, granulations as florid as those of the adjacent muscle.

The adipose tissue is liable to general or partial hypertrophy.

Common fatty tumors result from partial hypertrophy of this texture. They require to be removed by an operation; which occupies very little time, and is easily performed, if the surgeon begin by opening the sac of cellular membrane that immediately contains the tumor. Fatty tumors consist of large lobulated masses of coarse adipose membrane and fat. They often acquire a large size. The largest which I have removed weighed 13 pounds 2 ounces.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Meetings, and Papers read.

The ordinary meetings of the Society for 1834-5, commenced the 11th of last month, at the house of the President. The whole of the time of the meeting on the 11th of November was consumed in the consideration of matters arising out of the grant of a charter by the Crown, a copy of which we gave in a recent number.

Dr. Philip on the Sympathies.—The next meeting took place on the 25th, when, after some private business, a paper was read from the pen of Dr. Wilson Philip, "On the Influence of the Sympathies of the more perfect Animals in determining the Nature and Progress of Disease." The abstract nature of the subject, and the unavoidable absence of new facts, rendered the paper somewhat barren of general interest, notwithstanding the hard-earned and well-deserved reputation of its author: these considerations, joined to the pressure of "metal more attractive," compels us to abstain from analysing it.

Mr. Key on Ulceration in the Joints.—Another meeting was held, *horâ locoq. solitis*, on the 9th of the current month, when a paper was read from Mr. Key, on ulceration in joints. The principal feature in the paper appeared to us an ingenious attempt to prove that ulcerative erosion, or thinning of cartilage, is in many cases not the effect of absorption, so much as of ramollissement or breaking down of the tissue, which would appear to be a return *pro tanto* to the theory of suppuration maintained before the discoveries of Hunter. We have not space for a detailed analysis of it: the author illustrated his views by interesting preparations.

Mr. Cock on the Anatomy of Congenital Deafness.—On the same evening was read a short but important paper, by Mr. Cock, on the anatomy of congenital deafness. In this paper the author gave details and observations made in the examination of several cases of congenital deafness, all agreeing in having the semicircular canals more or less imperfect. The inference of the author was, that the deafness was owing to the defective structure or development of the canals.

Dr. Seymour on the Use of Morphia in Lunacy.—On the 23d ult. the fourth ordinary meeting of the session was held in Conduit Street, when a paper by Dr. Seymour, of St. George's Hospital, was read, on the use of morphia in lunacy. In this paper the author gives details of three cases, in which the acetate of morphia, generally in grain doses, and aided by constant refrigeration of the head and by mild aperients, appeared to produce very satisfactory results. He mentions having prescribed it nightly for several consecutive months with excellent effects. The practice, which is rather at variance, we believe, with ideas very generally received as to the properties of opium as a remedy for insanity, was suggested, the author stated, by the experience of the great asylum of Bethnal Green, with the results of which he had been made acquainted some years since. The class of cases for which Dr. S. considers the remedy especially advisable, are the melancholic.

Yet another meeting is, we understand, likely to be held at the house of the president. It is not expected, if we are not misinformed, that the apartments taken by the Society in Berners-street will be fully ready before the middle of January.

PASTILLES (*de Lepère*) FOR COLDS AND CATARRHS.

No. 1.—Acetate of morphia, 1 *gros*; gum tragacanth, 3 *onces*; sugar, 18 *livres*; water, q. s. To be made into pastilles, a *demigros* each.

No. 2.—Sulphate of quinine, 1 *once*; saffron powdered, 3 *gros*, 54 *grains*; liquorice powdered, 2 *livres*, 4 *onces*; gum tragacanth, 3 *onces*; sugar, 18 *livres*; water, q. s. Make as before, pastilles, a *demigros* each.

No. 3.—Acetate of morphia, 1 *gros;* camphor. 1 *once*, 1 *gros;* chloruret of lime, 2 *onces*, 2 *gros;* gum tragacanth, 3 *onces;* sugar, 18 *livres;* water, q. s. Pastilles of this description to weigh 8 grains each.—*Gaz. des Hôpitaux.*

EFFFCTS OF IODINE ON THE EPIDERMIS AND HAIR.

By M. Stedman.

The author relates, that in the winter of 1831, having amputated the foot of a person affected with scrofulous disease of the instep, he was for a long time unable to obtain a cure of some scrofulous ulcers situated on the tibia. Wishing to act on the constitution, and to combat the diarrhœa, which seemed to keep up the disease, he prescribed iodine. Before the appearance of the ulcer had been modified, and about a fortnight after the patient had commenced the use of the iodine, he remarked that the scalp, which for a long time had been covered with scales and filth, was completely freed from them, and that the hair which had been formerly dry and filthy, had become soft, and had acquired a bright gloss.

The observation of these change directed the attention of Mr. Stedman to other scrofulous patients, under the same medical treatment. Similar changes occurred. One thing is remarkable, that while the hair and scalp experienced this improvement, the tumors or scrofulous ulcers, against which the medicine was specially directed, remained in the same state. All the patients were kept to a milk diet, and the iodine was administered according to the following formula of M. Lugol:—

℞ Iodini, gr. v.
Pot Hydriodat. gr. x.
Aq. Distill. ℥iv.

Capt. gutt. vi. bis in die; dosè aucta gradatim ad gutt. xl.—*Boston Medical Mag.*

INSECT PARASITES.

M. Vallot, of Dijon, writes to the Academie des Sciences, that, in September last, he observed, on the female flax, some larvæ of the *noctua persicariæ* which were visibly preyed upon by intestinal worms. The worms pierce the skin of the *nortua* readily, are white, glistening, and ovoidal in shape. They appear to have a tail, but it is owing to the gluey nature of their dejections. A larva of this species, on quitting the nortua at whose expense it has been nourished, changes at once its integument: the chrysalis is well formed, and in the course of twenty-four hours becomes of a shining black colour. It adheres by the back to the place of its support, and presents its abdomen to the observer. At the end of a fortnight the perfect insect is developed: it is the *Eulophus*, with branched antennæ.

BONE SOUP.—(*Soupe à la Gelatine.*)

This economical and nutritious substance has now been tried for five years, at the Hospital St. Louis, Paris, with the most complete success. It appears that more than a million and a half of portions of the soup have been distributed, within that period, to above 45,000 persons. The portion is a *demi-litre;* and it is calculated, that, all expenses included, the cost of each *litre* (about 1¾ pint English) is not more than 18 *cent.* 3 *mill.* (about 1¾*d.* of our money.)

ORNITHORYNCHUS PARADOXUS.

A communication from Mr. Richard Owen, of the College of Surgeons, London, was read in the Académie des Sciences on the 3d ult. It was on the subject of the *mammiferous* organization of the ornithorynchus.—*Journal Hebdomadaire.*

REPUTED ANTIDOTE FOR ARSENIC.

M. Orfila, at a late sitting of the Academie de Médecine, gave an account of M. Lesueur's experiments on the properties of the hydrated tritoxide of iron, as an antidote for arsenious acid. When an animal has the power of vomiting (said M. Orfila) this poison may be expelled wholly, or in part, from the stomach, and recovery take place: so that if a reputed counterpoison be administered in these circumstances, to it may be attributed the effects which really belong to the vomiting. Now M. Lesueur, in order to avoid this objection, took care to tie the œsophagus immediately after the introduction of the deleterious substance.

In his first experiment, he gave a strong dog nine grains of arsenious acid, and, immediately after, three ounces two gros of the hydrated tritoxide of iron. The œsophagus was tied. No accident resulted: the dog still lives—seventy hours after the experiment. The same was tried on other dogs, with the same result.

In a second experiment, the tritoxide was not given till half an hour after the arsenic: the dog died with all the symptoms of poisoning. Now, as it is known (said M. Orfila) that arsenious acid does not kill by local inflammation, but by absorption, we must infer that, in this second experiment, the absorption had actually taken place—for which there was abundant time.

The conclusions stated by M. Orfila are, that the hydrated tritoxide of iron is an effective counter-poison for arsenic; but that the anhydrous tritoxide has not the same virtues. He imagines that an arsenite of iron is formed in the stomach, and that this substance is not poisonous.

It was suggested by M. Duval, that Navier had long ago recommended the salts of iron by way of antidote for arsenic, and that writing-ink had even been employed for the purpose.

M. Chevallier, it is said, is engaged at present in ascertaining the efficacy of large doses of the *protoxide* of iron. — *Journal Hebdomadaire.*

[We have little faith in the properties of the new *antidote*, so confidently lauded by M. Orfila. It is pretty evident, from the large quantities of it required, that it must act chiefly by mechanically protecting the coats of the stomach: but we refer our readers to Mr. Brett's ingenious experiments on the subject, in a late number of this journal. See p. 220, *ante*.]

OFFICIAL CONTRADICTION OF THE MISSTATEMENTS IN THE LANCET,

REGARDING THE SCHOOL OF PHYSIC IN IRELAND.

To the Editor of the Medical Gazette.

SIR,

HAVING seen in the Lancet of Saturday last a statement that the classes of the School of Physic in Ireland have declined to one-third of the usual number since the late Parliamentary inquiry, I am directed by the governors of this hospital to communicate, through the medium of your journal, that the clinical class of the School of Physic *is more numerous, and better attended this season, than for several previous years.*

I have the honour to be, sir,
Your obedient humble servant,
S. C. HOPE COOPER, *Reg.*

Sir Patrick Dun's Hospital, Dublin,
Dec. 23, 1834.

NEW WORKS.

An Essay on the Use of the *Liquor* Potassæ and Liquor Alkalinus, in the Treatment of Malignant Cholera: with Notes and Cases. By H. W. Dodd, M.R.C.S.

IN THE PRESS.—Remarks on the Electric and Galvanic Influence, in the Cure of Acute and Chronic Diseases. By M. La Beaume, Esq. Medical Galvanist, &c. to the King, F.L.S. &c.

APOTHECARIES' HALL.

LIST OF GENTLEMEN WHO RECEIVED CERTIFICATES DEC. 24, 1834.

George Henry Bore, Ryde, Isle of Wight.
William Phillips, Brockton Grange, Salop.
Robert Ellison Gorst, Cheshire.
James Shaw, Manchester.
John Thomas Harland, Ashbourne, Derbyshire.
William Harris Green, Woburn, Bedfordshire.

WEEKLY ACCOUNT OF BURIALS,

From BILLS OF MORTALITY, *Dec.* 23, 1831.

Abscess	1	Inflammation	30
Age and Debility	43	Bowels & Stomach	3
Apoplexy	9	Brain	4
Asthma	27	Lungs and Pleura	4
Childbirth	2	Influenza	1
Consumption	45	Insanity	1
Convulsions	37	Jaundice	2
Croup	5	Liver, diseased	1
Dentition or Teething	7	Measles	19
Dropsy	12	Mortification	3
Dropsy on the Brain	14	Paralysis	1
Dropsy on the Chest	5	Small-Pox	9
Fever	5	Sore Throat and Quinsey	2
Fever, Intermittent, or Ague	1	Stone and Gravel	1
Fever, Scarlet	10	Stricture	1
Fever, Typhus	2	Thrush	1
Heart, diseased	1		
Hooping-Cough	15	Stillborn	12

Increase of Burials, as compared with the preceding week . . . 48

NOTICES.

"An Unsuccessful Competitor" states no new *facts*, and we have no desire to open our pages to mere matter of *opinion* on the subject.

Mr. Roberton's paper has been received: the suggestions accompanying it shall be attended to.

We are informed by Dr. Turner, that the report relating to his evidence in the case of alleged poisoning, which we noticed in our last number, was incorrectly given in the newspapers. We are obliged to postpone Dr. T.'s letter, which, although dated the 22d, did not reach us till the evening of the 24th; before which time, owing to Christmas falling on the Thursday, we had been obliged to make up the number.

We cannot insert the anonymous letter about the Marylebone Infirmary election.

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RESPIRATION OF GASES—DEATH FROM COLD, &c. &c.

BY JAMES PHILLIPS KAY, M. D.

FORMERLY PRESIDENT OF THE ROYAL MEDICAL SOCIETY, EDINBURGH,
&c. &c.

"We must content ourselves with recommending most strongly to his," (the readers) "perusal, not only these chapters, but also the whole work, as one containing a vast mass of information on the most interesting subjects, and also as an example of a calm and very philosophic discussion of some very difficult physiological points Such works should be perused by medical men with a two-fold object first, as giving a practical lesson in the art of reasoning; and, secondly, from the increase which they may afford to the existing stock of knowledge.

"The letter prefixed to this work, and addressed to the Duke of Northumberland, as President of the Humane Society, contains a useful abstract of all that is connected with the pathology and treatment of the Asphyxiated It ought to be printed in a cheap and separate form, and circulated far and wide throughout the country.

"We take leave of Dr. Kay's work, not without some regret. We would we could always ensure ourselves so agreeable a task in the business of reviewing, as that we have had with this book. We trust this is not the only subject on which the talented author means to make his views and researches public; however that may be, we conceive he has done enough to entitle him to the warmest praise of his cotemporaries, and to secure for himself a fame of no short duration."—*Medical Quarterly Review. October*, 1834, p. 57.

"Dr. Kay has acquitted himself with great ability; he shews a very extensive knowledge of his subject. We have here the result of several years close research and experimental enquiry; and the volume may be considered as a summary of the author's matured opinions regarding several points of deep interest and importance, which he has on former occasions discussed."—*London Medical Gazette.*

"This book abounds with valuable suggestions regarding those methods; and we cannot but recommend it strongly to the attention of practitioners."—*Ibid.*

"A work of the highest character and importance, the most complete monograph we possess on that interesting subject. We are glad to observe that in the latest work on Physiology published in this country and in the most recent essay on Asphyxia* which has appeared on the Continent, these experiments are referred to, and their validity acknowledged."—*Liverpool Medical Journal.*

"We cannot close our remarks on Dr. Kay's work without congratulating our professional brethren in this district on the important addition to medical bibliography, which has been made by one of their members."—*Liverpool Medical Journal, June,* 1834.

"Into the consideration of these subjects, our limits will not permit us to enter at length, and we must entreat our readers, who are curious, to consult the volume for themselves. It is evident that Dr. Kay has studied the subject with much attention; and we think that he has been usefully employed in diverting the attention of physiologists and pathologists to a point in the theory of Asphyxia, evidently too much overlooked, and which is certainly of no small moment in regulating the nature and choice of the means to be adopted for effecting resuscitation."—*Edinburgh Medical and Surgical Journal,* cxx. *July,* 1834, p. 222.

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* Alison's Outlines of Physiology, &c. 1833.
Berard Dict. de Medicine, 2d edit. 1833, Art. Asphyxie.

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